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SERVICE MANUAL

Vision Master™ Pro **512** **HA202DT**

Copyright IIYAMA CORPORATION

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SAFETY PRECAUTION

- The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by mark "#" on the schematics and "I" on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may create shock, fire, or other hazards.
- Use isolation transformer.
The chassis and any sub-chassis contained in some products are connected to the primary circuit of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the primary circuit of the AC power supply is exposed.
- The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.) To maintain the proper minimum level of soft X-ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- Isolation Check**
(Safety for Electrical Shock Hazard)
After reassembling the product always perform an isolation check on the exposed metal parts of the cabinet (video input and output terminals, control knobs, screwheads, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
- (1) Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1,500V AC(r.m.s.), 20mA(current sensitivity) for a period of one minute.
This method of test requires a test equipment not generally found in the service trade.
- (2) Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe etc.). Any leakage current must not exceed 3.5mAAC(r.m.s.).

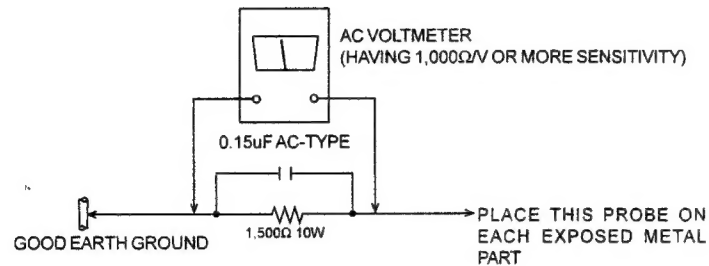
NOTICE

The information in this document is subject to change without notice.

Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe etc.).

Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 2.45V AC(r.m.s.). This corresponds to 3.5mA AC(r.m.s.).



1. SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

<Required measuring equipment>

Signal generator (Programmable video generator).....	Leader 1604A
DC voltmeter (300V DC range)	
Note: Digital multimeter can also be used.	
High voltage probe (0-30kV DC)	
Color analyzer.....	Minolta CA-100
Photometer.....	Minolta LS-100
Electric field meter.....	Combinova EFM 100
Scale (Two 50cm scales put together so that no visual aberration occurs.)	
Frequency counter	
Digital wattage meter	
Landing meter.....	LSS LND-070 or 072
Degausser	
Headphones	
CD player	
Audio-LR confirmation equipment	
USB compliant computer	
Interface adapter (liyama handmade)	
Short-connector (liyama handmade)	

<Preparation>

1. Place the monitor without tilting.
2. Connect the signal cable from the signal generator to the monitor.
3. Face the CRT screen to east so as not to be influenced by magnetic force.
4. Turn ON the Power Switch, and degauss the entire screen with degausser. → See "EXTERNAL DEGAUSS".
5. Perform adjustment by setting the brightness to center and the contrast to maximum, except where specifically indicated.
6. Receive MODE 5 and turn ON the Power Switch. Perform adjustment after a warm-up of at least an hour.
7. Adjustment data is automatically saved in the memory when the on screen display disappears, when another signal is received.

Note: This monitor should be checked and adjusted by connecting it to a signal generator, then entering and running the timing charts both below and of Chapter 2.

#H (kHz)	Resolution*	Sync polarity				Horizontal (μsec)					Vertical (msec)				
		H	V	Comp	on green	A	B	C	D	E	O	P	Q	R	S
29.2	640×400	P	P	—	—	34.26	2.74	3.43	27.40	0.69	14.285	0.103	0.444	13.704	0.034
30.9	800×600	P	P	—	—	32.36	2.57	3.34	25.68	0.77	20.000	0.097	0.455	19.416	0.032
47.6	1024×720	N	N	O	O	21.00	2.00	2.36	15.76	0.88	16.695	0.084	0.420	15.115	1.076
77.8	320×350	P	P	—	—	12.69	1.06	1.64	9.40	0.59	5.000	0.038	0.508	4.442	0.012

* The resolutions are only for your reference when using Leader 1604A.

ADJUSTMENT MODE

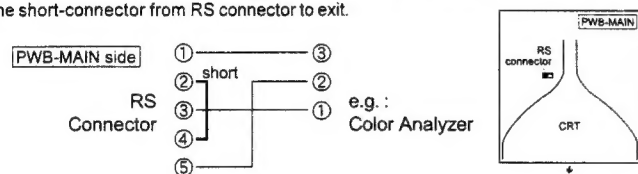
There are two different modes available to adjust the monitor as described below. The adjustment with '□' in front of the title are only available under User Mode. The adjustments with '■' in front of the title are only available under Factory Mode. You can perform the other adjustments by either User or Factory Mode. Please change the mode as required.

USER MODE:

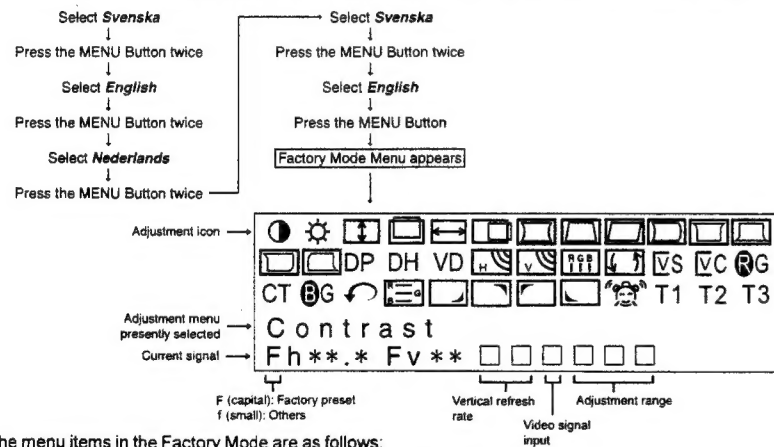
Turn ON the Power Switch and you are in the User Mode.

FACTORY MODE: There are two ways to enter the Factory Mode.

1. Turn OFF the Power Switch. Short between pins 2 and 4 of RS connector on the PWB-MAIN with a short-connector. Turn ON the Power Switch and you are in the Factory Mode. The following Factory Mode Menu appears on the screen when you press the MENU Button. Turn OFF the Power Switch and remove the short-connector from RS connector to exit.



2. In the adjustment menu, select "Function" on the Main Menu and then select "Language" on the Sub-Menu. Follow the flow chart below and you are in the Factory Mode. Turn OFF the Power Switch to exit.



The menu items in the Factory Mode are as follows:

Contrast	Pincushion	Pinbalance Top	V moire	Temp cont	Top-left
Brightness	Trapezoid	Pinbalance Btm	H convergence	Blue gain	Bottom-left
V-size	Parallelogram	DBF Para	Tilt-Dy	rrc	CRT check
V-position	Pinbalance	DBF Phase	V linear side	V-conver	DA TEST 1
H-size	Sidepin Top	V DBF	V linear corner	Bottom-right	DA TEST 2
H-position	Sidepin Bottom	H moire	Red gain	Top-right	DA TEST 3

EXTERNAL DEGAUSS

Make sure you disable the Bottom-right, Top-right, Top-left, Bottom-left, and rrc settings before performing the external degauss. Follow the procedure below depending on the adjustment mode you are in.

PROCEDURE

□ USER MODE

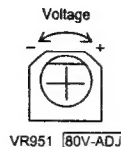
- 1) Select Degauss and press the MENU Button so that the Bottom-right, Top-right, Top-left and Bottom-left will be disabled.
- 2) Degauss the entire screen with degausser while the Degauss is activated (approx. 6 seconds).

■ FACTORY MODE

- 1) Select CRT Check and press the MENU Button so that the Bottom-right, Top-right, Top-left, Bottom-left, and rrc will be disabled.
- 2) Confirm that the OSD stays displayed on the screen.
- Note:** If the OSD disappears, restart from 1).
- 3) Degauss the entire screen with degausser.

1-1. 80V-ADJ adjustment [PWB-MAIN]

- 1) Receive a cross-hatch inverted signal of MODE 1 when applying the AC voltage of $110 \pm 10V$.
- 2) Connect the DC voltmeter between CONNECTOR TP and GND (chassis).
- 3) Adjust the voltage to $DC\ 83 \pm 0.5V$ with VR951 (80V-ADJ).

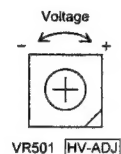


1-2. ANODE VOLTAGE adjustment [PWB-MAIN]

WARNING !

VR501 (HV-ADJ) and VR503 have been carefully factory-adjusted for each unit in order to satisfy regulations regarding X-radiation. Further adjustment on VR501 and VR503 shall not be performed. In case of adjustment, the adjusted position of VR501 and VR503 must be fixed by a soldering iron to prevent it from rotating.

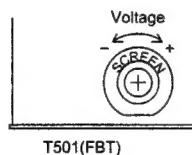
- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Turn OFF the Power Switch.
- 3) Connect a high-voltage probe between CRT anode and GND (chassis).
- 4) Turn ON the Power Switch.
- 5) Adjust the high-voltage to $27.0 \pm 0.1kV$ with VR501 (HV-ADJ).
- 6) Confirm the variation of high-voltage is within $\pm 0.2kV$ when receiving MODE 1 and MODE 8 respectively.
- 7) Turn OFF the Power Switch and remove the high-voltage probe.



1-3. SCREEN VOLTAGE adjustment [PWB-MAIN]

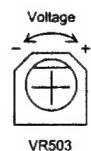
- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Turn ON the Power Switch.
- 3) Connect a high-voltage probe between LEAD-CONNECTOR SC on the PWB-MAIN / CONNECTOR SC on the PWB-VIDEO and GND (chassis).
- 4) Adjust the screen voltage to $630 \pm 10V$ with SCREEN VR located lower of T501 (FBT).

Note: SCREEN VR should not be turned after the adjustment above.



1-4. X-ray ADJ adjustment [PWB-MAIN]

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Turn OFF the R, G and B outputs on the signal generator.
- 3) Connect the DC voltmeter between D526 cathode (TP-XRAY ADJ) and GND (chassis).
- 4) Adjust the voltage to $DC\ 1.7 \pm 0.1V$ with VR503.



1-5. POWER FACTOR CIRCUIT confirmation [PWB-MAIN]

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Turn OFF the Power Switch.
- 3) Connect the DC voltmeter between TP4 and TP0.
- 4) Turn ON the Power Switch.
- 5) Confirm that the voltage is $DC\ 360 \pm 40V$.
- 6) Remove the DC voltmeter.

1-6. TEMPERATURE SENSOR confirmation

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Select CRT Check and press the MENU Button.
- 3) Confirm that respective temperature of CRT fannel and monitor front displayed on the screen is as follows: actual temperature $\pm 5^{\circ}C$.

CRT Check

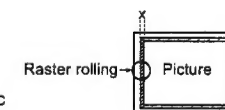
35 } CRT fannel
30 } Monitor front

1-7. FH-LIMITER confirmation

- 1) Receive a cross-hatch inverted signal of fH 29.2kHz.
- 2) Confirm that the picture disappears. Also, make sure the horizontal oscillation frequency is within the specified range: 58-62kHz.
- 3) Receive fH 30.9kHz and confirm that the picture is synchronized.
- 4) Receive fH 77.8kHz and confirm that the picture is synchronized.
- 5) Turn OFF the power of signal generator and confirm that the picture disappears. Also make sure the horizontal oscillation frequency is within the specified range above.
- 6) Remove the frequency counter.

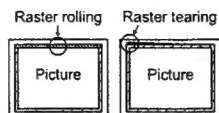
1-8. H-BLANKING confirmation

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Minimize the horizontal size (H-size) with the front buttons.
- 3) Select DA TEST 2 and press the MENU Button so that the automatic confirmation program starts.
- 4) Confirm that X of the right hand side figure is as follows: $X \leq 3.0mm$.
- 5) Adjust the horizontal size roughly with the front buttons.



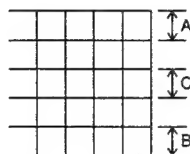
■1-9. V-BLANKING confirmation

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Adjust the vertical size and position (V-size and V-position) of the picture roughly with the front buttons.
- 3) Select DA TEST 2 and press the MENU Button so that the automatic confirmation program starts.
- 4) Confirm that the back-raster is not rolling or tearing at the top.
- 5) Confirm that no retrace line is over the picture.



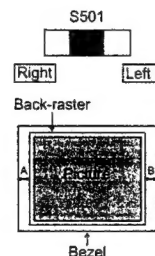
■1-10. V-LIN adjustment

- 1) Receive a cross-hatch inverted signal of MODE 7.
- 2) Adjust the vertical size so that the size is 295 ± 4 mm.
- 3) Adjust the vertical linear corner (V linear corner), so that difference between A and B of the right hand side figure is as follows: $|A-B| \leq 0.5$ mm
- 4) Adjust the vertical linear side (V linear side), so that A, B and C are almost equal.



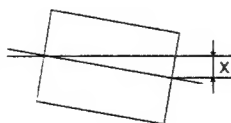
■1-11. H-CENT adjustment [PWB-MAIN]

- 1) Receive a cross-hatch inverted signal of MODE 8.
- 2) Adjust the horizontal size and position of the picture roughly with the front buttons.
- 3) Maximize the brightness so that the back-raster appears on the screen.
- 4) Set S501 to the right, center or left so that A and B in the right hand side figure are almost equal.
- 5) Return the brightness to center indication.



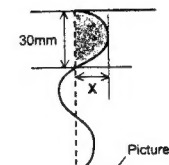
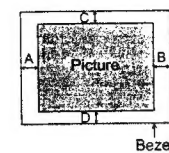
■1-12. TILT-DY adjustment

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Adjust the tilt deflection yoke (Tilt-Dy) with the $\blacktriangleright / \blacktriangleleft$ Buttons so that X of the right hand side figure is as follows: $|X| \leq 0.5$ mm.



■1-13. PICTURE SIZE, POSITION AND DISTORTION adjustment (Criteria)

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Adjust the picture size and position to the specified setting below.
H-size: 395 ± 4 mm H-position: $|A-B| < 4$ mm
V-size: 295 ± 4 mm V-position: $|C-D| < 4$ mm
- 3) Correct the side distortion with the front buttons so that X of the right hand side figure is as follows: $|X| \leq 0.5$ mm/30mm when selecting the most remarkable distortion with the naked eye.
Pincushion Parallelogram
Trapezoid Sidepin Top / Bottom
Pinbalance Pinbalance Top / Bottom



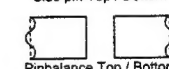
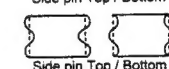
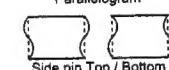
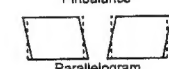
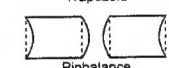
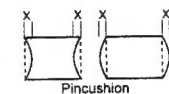
■1-14. PICTURE SIZE, POSITION AND DISTORTION adjustment

- 1) Receive a cross-hatch inverted signal of FH MODE 5.
- 2) Adjust the picture size, position and distortion roughly with the front buttons to the reference settings below.
H-size: 395 ± 10 mm H-position: $|A-B| < 8$ mm
V-size: 295 ± 10 mm V-position: $|C-D| < 8$ mm
 $|X| \leq 1.0$ mm/30mm when selecting the most remarkable distortion with the naked eye.

Note: The picture should be within the bezel.

- 3) Receive a cross-hatch inverted signal of all preset modes respectively.
- 4) Adjust the picture size and position to the specified setting below.
H-size: 395 ± 10 mm H-position: $|A-B| < 8$ mm
V-size: 295 ± 10 mm V-position: $|C-D| < 8$ mm
- 5) Correct the Pincushion and Trapezoid distortion with the front buttons so that X of the right hand side figure is as follows: $|X| \leq 0.5$ mm/30mm when selecting the most remarkable distortion with the naked eye.

Note: No other adjustment items for distortion than the above should be adjusted.



□1-15. RESET confirmation


- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Change the horizontal position (H-position) roughly with the front buttons.
- 3) Perform Reset.
- 4) Confirm that the adjustment data above is reset to the factory setting.

■1-16. Automatic COLOR adjustments

WARNING: Do not change the horizontal and vertical sync signal or the frequency while the automatic COLOR adjustments are underway.

Color analyzer setting:

- Luminance unit switch: cd/m²
- B.P.S. DIP switch: 9600 (1000)
- Turn ON the color analyzer switch and press 0-CAL switch before use.

cd/m²  fL
Luminance unit switch

 0 1
B. P. S. DIP switch

- 1) Be sure to enter the Factory Mode by using the short-connector.
- 2) Connect the interface adapter from RS-232C of the color analyzer to the PWB-RS of the short-connector.
- 3) Receive a white window signal of MODE 5.
- 4) Turn OFF the R, G and B outputs on the signal generator.
- 5) Apply a color analyzer probe to the center of the screen.
- 6) Turn ON the Remote Switch of the color analyzer so that the automatic CUT-OFF adjustment starts.
- 7) Turn ON the R, G and B outputs on the signal generator so that the COLOR TEMPERATURE and CONTRAST LIMIT adjustments start automatically.

<COLOR TEMPERATURE>

The X and Y specified readings of the color analyzer are as follows:

CT 1 (9300K)
X: 0.283±0.008
Y: 0.297±0.008

<CONTRAST>

The specified contrast range is 140±8cd/m².

Note: In case that the contrast is not within the specified range above, repeat 4) to 7).

- 8) The OSD disappears.
- 9) Press the MENU Button so that the OSD appears.
- 10) All adjustment data is stored when the OSD disappears.
- 11) Turn OFF the Remote Switch of the color analyzer.
- 12) Turn OFF and ON the Power Switch and you are in the User Mode.
- 13) Perform Reset and confirm the Brightness ranges are as follows:
ONQ ON: 140±8cd/m²
OPQ OFF: 110±8cd/m²

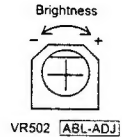
Note: The adjustments above can be repeated by turning OFF and ON the Power Switch.

■1-17. GRAY SCALE confirmation

- 1) Receive a 16-gradation gray scale signal of MODE 5.
- 2) Make sure the 15th gradation on the gray scale is barely visible when the 16th gradation (back raster) is not visible at all.

■1-18. BRIGHTNESS adjustment [PWB-MAIN]

- 1) Receive an entire white raster signal of MODE 5.
- 2) Apply a photometer to the screen center.
- 3) Adjust VR502 (ABL-ADJ) so that photometer reads 105±5cd/m².



■1-19. SYNC SIGNAL INPUT confirmation

- 1) Receive a cross-hatch inverted signal of fH 47.6kHz.
- 2) Select composite and sync on green signal inputs respectively by the signal generator.
- 3) Confirm that the picture is displayed normally.

□1-20. SIGNAL SELECT confirmation

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Switch the signal input to VIDEO IN 1 and VIDEO IN 2 respectively.
- 3) Press the Input Select Button (VIDEO 1/2) for approx. 5-6 seconds.
- 4) Confirm that the picture is displayed normally.

□1-21. POWER MANAGEMENT confirmation

- 1) Turn OFF the Power Switch and connect a digital wattage meter.
- 2) Turn ON the Power Switch.
- 3) Receive a cross-hatch inverted signal of MODE 5.
- 4) Turn OFF the R, G and B outputs on the signal generator.
- 5) Disconnect the H/HV and V cables.
- 6) Confirm that the input wattage is 3W or less and the Power Indicator turns to orange.
- 7) Connect the H/HV and V cables and confirm that the picture appears.
- 8) Turn OFF the Power Switch and remove the digital wattage meter.
- 9) Turn ON the Power Switch.

■1-22. H-CONVERGENCE confirmation

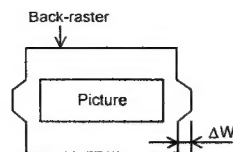
- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Select H-convergence or DA TEST 2, and press the MENU Button so that the automatic confirmation program starts.
- 3) Confirm that the horizontal line is diverged.

■1-23. V-CONVERGENCE confirmation

- 1) Receive a cross-hatch inverted signal of MODE 5.
- 2) Select V-convergence or DA TEST 2, and press the MENU Button so that the automatic confirmation program starts.
- 3) Confirm that the vertical line is diverged.

■ 1-24. RASTER REGULATION (DYNAMIC) confirmation

- 1) Receive an entire white signal of MODE 5.
- 2) Set the input signal by the signal generator as follows:
V-DISP-TIME: 150 V-POSI-TIME: 450
- 3) Maximize the brightness or set the signal level to 0.9Vp-p by the signal generator.
- 4) Confirm that ΔW of the right hand side figure is 1.0mm or less when turning the luminance volume on the signal generator to the maximum and "1" respectively.
- 5) Return the brightness to center indication.



■ 1-25. FOCUS [PWB-MAIN]

- 1) Receive a green cross-hatch signal of MODE 5.
- 2) Adjust FOCUS-B VR of T501 (FBT) to make the vertical lines sharpest at points L, M and R as shown in Fig. 1.
- 3) Adjust FOCUS-A VR of the T501 to make the horizontal center line sharpest at points L, M and R as shown in Fig. 1.
- 4) If the focus at points T and M is as shown in Fig. 2, adjust V-DBF in the menu with the front buttons to make the horizontal lines have the same thickness at points T, M and B. And adjust the FOCUS-A VR again to make the horizontal lines sharpest at points T, M and B. (V-DBF should not be adjusted when focus at points T and M is optimum.)
- 5) If the focus at points L and M is as shown in Fig. 3 or vice versa, adjust DBF Para and DBF Phase in the menu with the front buttons to make the horizontal center line have the same thickness at points L, M and R. And adjust the FOCUS-A VR again to make the horizontal center line sharpest at points L, M and R. (DBF Para and DBF Phase should not be adjusted when focus at points L and M is optimum.)
- 6) Repeat 2) to 5) until the focus is optimum.
- 7) Confirm no focus variation on the entire screen.
- 8) Check the focus with red and blue respectively.
- 9) Receive a H-character signal and repeat 7).
- 10) Repeat the FOCUS adjustments until the focus with red, green and blue is optimum.

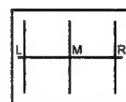
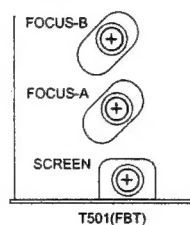


Fig.1

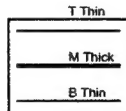


Fig.2

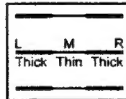
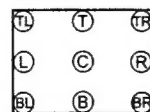


Fig.3



1-26. LUMINANCE DIFFERENCE confirmation

- 1) Receive an entire white signal of MODE 5.
- 2) Apply a photometer to the two points where the luminance difference is remarkable with the naked eye.
- 3) Confirm that the luminance difference is 22.5cd/m² or less.

1-27. AUDIO confirmation

- 1) Turn the Volume Control from 0% to 100% and make sure the sound is normal without hum etc.
- 2) Set the Volume Control at mechanical center.
- 3) Connect the output of a CD player to the Audio Connector and make sure the right and left speaker works normally.
- 4) Turn the Volume Control and make sure the volume varies.
- 5) Connect Audio-LR confirmation equipment between the Audio Connector and CD player.
- 6) Turn off left switch of the Audio-LR confirmation equipment and make sure the right speaker works normally.
- 7) Turn off right switch of the Audio-LR confirmation equipment and make sure the left speaker works normally.
- 8) Turn the Volume Control to 0% and connect headphones to the Headphone Connector.
- 9) Confirm that the Headphones don't make noise.
- 10) Turn the Volume Control from 0% to 100% and make sure the sound from the both headphones is well balanced and normal without hum etc.

1-28. USB Operation Check

- 1) Connect cables according to the user manual.
- 2) Turn ON the Power Switch of the monitor and computer.
- 3) Double-click "Universal serial bus controller" as shown in Fig 1 on next page.
- 4) Confirm that "Generic USB Hub" or "Iiyama USB Hub" appears as shown in Fig 2.
- 5) Disconnect the USB Cable from the USB compliant computer.
- 6) Double-click "Universal serial bus controller".
- 7) Confirm that "Generic USB Hub" or "Iiyama USB Hub" disappears as shown in Fig 3.
- 8) Connect the USB Cable to the stand.
- 9) Repeat 1) to 5) and confirm that the USB function works normally.

Fig. 1

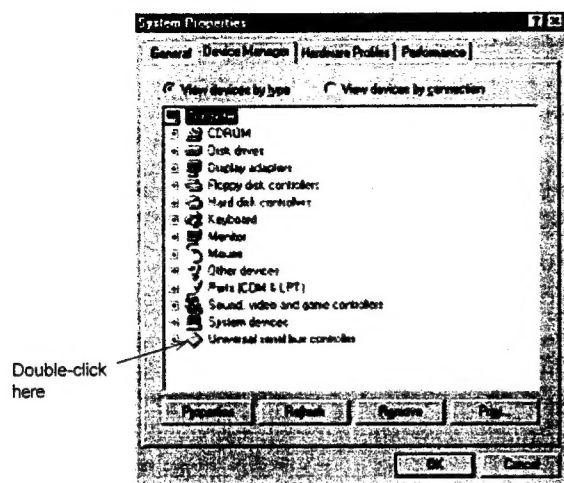
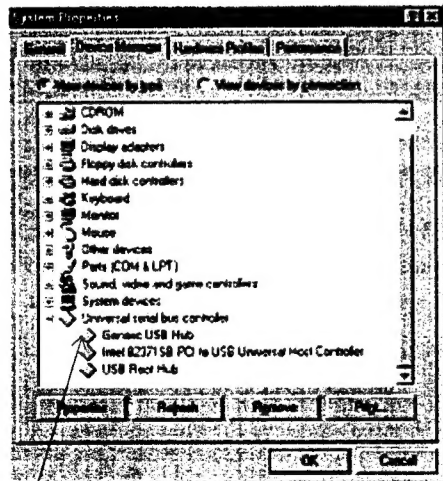
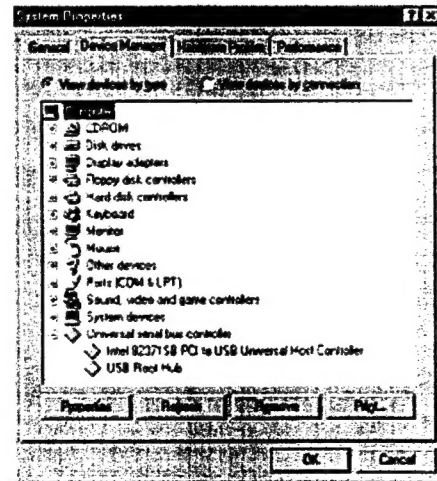


Fig. 2



"Generic USB Hub" or "Iiyama USB Hub"

Fig. 3



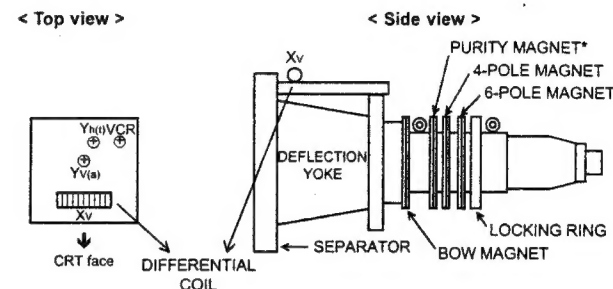
1-29. ITC (Integrated Tube Component) adjustments

The following ITC adjustments should be made only when a new picture tube is installed, or convergence is poor. All set-up adjustments above-mentioned must be completed before any further ITC adjustment is attempted. Receive an entire white raster signal and turn ON the Power Switch. Perform adjustment after a warm-up of at least an hour.

Perform the following adjustments by setting H-convergence and V-convergence to center indication.

Notes: See Chapter 5 concerning parts list for the ITC adjustments.

* PURITY MAGNET should not be turned during the ITC adjustments.



1-29-1. LANDING correction

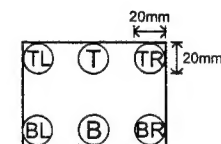
Landing meter setting:

- Mode Select Switch: Monitor Normal

Note: Mode Select Switch should be set before turning on the power switch of the landing meter.

- Volt: 2V
- Time: 50ms
- Gain: 7
- Unit: % for LND-070, 0.8μm (1%=0.8μm) for LND-072

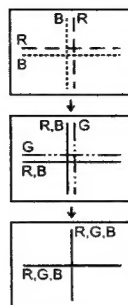
- 1) Face the CRT screen to east and set it vertically.
- 2) Degauss the entire screen with degausser. → See "EXTERNAL DEGAUSS".
- 3) Select DEGAUSS and press the MENU Button.
- 4) Receive an entire green signal.
- 5) Adjust the horizontal size to make it full-scan.
- 6) Apply the landing meter to TL (top-left), TR (top-right), BL (bottom-left) and BR (bottom-right) in the right hand side figure.
- 7) Confirm that "H" reading of the landing meter is within $\pm 20\%$ at each point.
- 8) Adjust rrc with the front buttons so that the "H" reading difference between T (top) and B (bottom) in the right hand side figure is as follows: $|T-B| = \pm 3\%$.
- 9) Adjust Bottom-right, Top-right, Top-left and Bottom-left respectively with the front buttons so that "H" reading of the landing meter at each point is as follows:



TL: -8 to -2% TR: +2 to +8% BL/BR: -3 to +3%

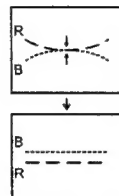
1-29-2. STATIC CONVERGENCE adjustment

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the 4-POLE MAGNET so that red and blue beams converge on the center cross lines.
- 3) Add green to the red and blue cross-hatch signal.
- 4) Adjust the 6-POLE MAGNET so that red and blue beams converge with green beam on the center cross lines.
- 5) Repeat the adjustment until red, blue and green beams converge each other.
- 6) Fix the 4-POLE MAGNET and the 6-POLE MAGNET by turning the LOCKING RING.
- 7) Mark the 4-POLE MAGNET and the 6-POLE MAGNET with paint marker (090Z029A01) so that adjusted position is understandable.



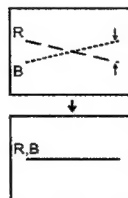
1-29-3. BOW MAGNET adjustment

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the BOW MAGNET so as to straighten an arched horizontal line.
Note: Must be careful not to misconverge vertical lines by this adjustment.
- 3) Perform the 1-29-3. STATIC CONVERGENCE adjustment so as to converge the red and blue lines.
- 4) Fix the BOW MAGNET with paint (090Z020A01).



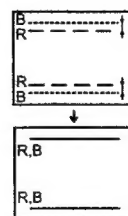
1-29-4. DIFFERENTIAL COIL adjustment (XV adjustment)

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the DIFFERENTIAL COIL so that the horizontal cross line converge each other.



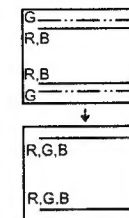
1-29-5. YV (a) adjustment

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the specified YV (a) volume so that red and blue beams converge each other at the upper and lower edges of the horizontal line.



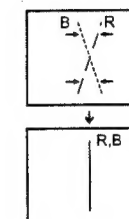
1-29-6. VCR adjustment

- 1) Receive a white cross-hatch signal.
- 2) Adjust the specified VCR volume so that red, green and blue beams converge each other at the upper and lower edges of the horizontal line.



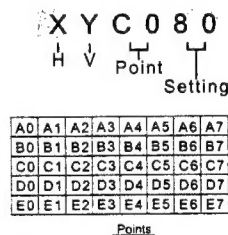
1-29-7. YH (t) adjustment

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the specified YH (t) volumes so that vertical cross lines converge each.



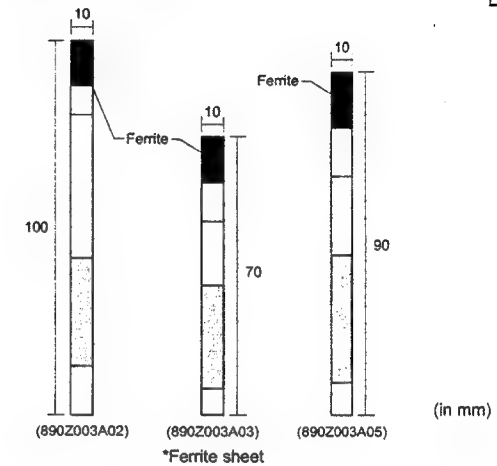
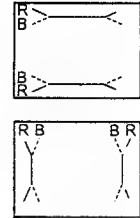
1-29-8. DIGITAL CONVERGENCE adjustments

- 1) Receive a red and blue cross-hatch signal.
- 2) Adjust the horizontal convergence (H-convergence) and the vertical convergence (V-convergence) with the front buttons so that red and blue beams converge.
- 3) Press the Input Select Button (VIDEO 1/2) so that the OSD as shown in the right hand side figure appears and the Digital H/V-convergence is enabled.
- 4) Confirm the horizontal/vertical convergence at the points: C0 to C8, B0 to B8, A0 to A8, D0 to D8, E0 to E8 in the right hand side figure.
- 5) If the horizontal/vertical line is diverged, select the adjustment point with the +/- Buttons and switch to X (H) or Y (V) with the MENU Button.
- 6) Press the +/- Buttons while the OSD is displayed to make red and blue beams converged.
- 7) Press the Input Select Button (VIDEO 1/2) so that the Digital H/V-convergence is disabled.
- 8) Add green to the red and blue cross-hatch signal.

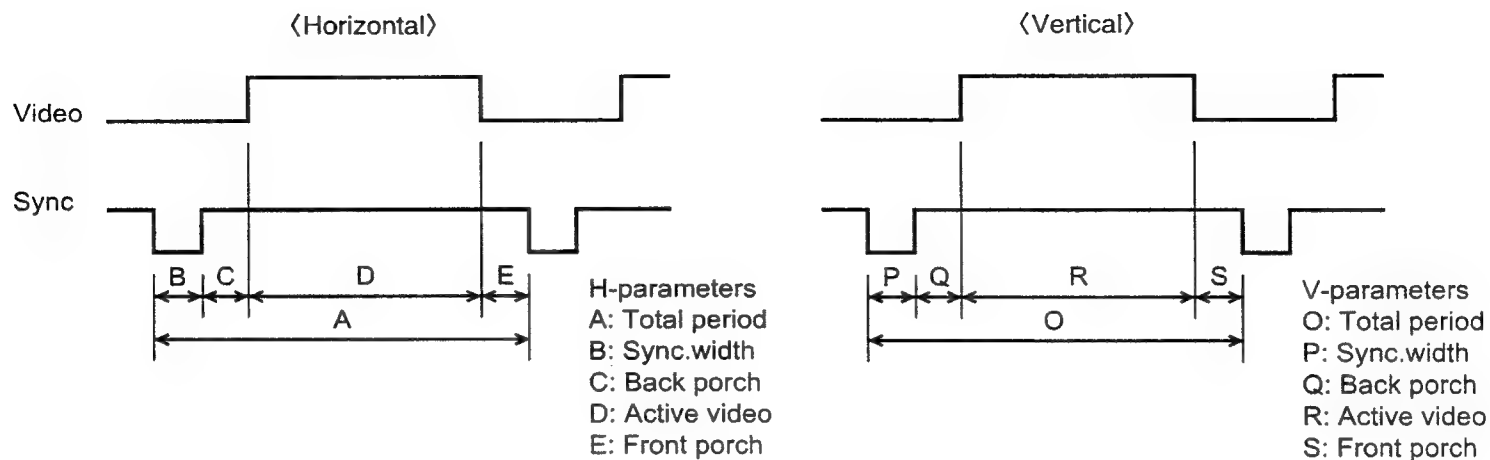


1-29-9. SCREEN-CORNER MISCONVERGENCE correction

- 1) Receive a red and blue cross-hatch signal.
- 2) Affix a *ferrite sheet (890Z003A02/890Z003A03/800Z003A05) between SEPARATOR and CRT corresponding to the partially misconverged areas.
Note: Must be careful not to affect distortion by this correction.
- 3) Fix the ferrite sheet with ACETATE-TAPE (890P306A10).
Note: Only for 800Z003A02 and 800Z003A03



2. TIMING CHART



Mode	VESA Timing Name	fH (kHz)	fV (Hz)	Sync polarity			Sync on green	Horizontal (μsec)					Vertical (msec)				
				H	V	Comp		A	B	C	D	E	O	P	Q	R	S
1	640×480 @60Hz	31.469	59.940	N	N	—	—	31.778	3.813	1.907	25.422	0.636	16.683	0.064	1.048	15.253	0.318
2	640×480 @85Hz	43.269	85.008	N	N	—	—	23.111	1.556	2.222	17.778	1.556	11.764	0.069	0.578	11.093	0.023
3	800×600 @85Hz	53.674	85.061	P	P	—	—	18.631	1.138	2.702	14.222	0.569	11.756	0.056	0.503	11.179	0.019
4	1024×768 @85Hz	68.677	84.997	P	P	—	—	14.561	1.016	2.201	10.836	0.508	11.765	0.044	0.524	11.183	0.015
5	1280×1024 @85Hz	91.146	85.024	P	P	—	—	10.971	1.016	1.422	8.127	0.406	11.761	0.033	0.483	11.235	0.011
6	1600×1200 @85Hz	106.250	85.000	P	P	—	—	9.412	0.837	1.325	6.972	0.279	11.765	0.028	0.433	11.294	0.009
7	1920×1440 @85Hz	128.520	85.000	P	P	—	—	7.781	0.633	1.078	5.625	0.445	11.765	0.023	0.529	11.204	0.007
8	2048×1536 @85Hz	137.020	85.000	P	P	—	—	7.298	0.577	1.010	5.278	0.433	11.765	0.021	0.525	11.210	0.007

3. IC APPLICATION

Ref No.	Description	Application	Location (PWB)
Deflection circuit			
IC350	UPC1888DCT	H&V oscillator, Distortion / Size / Phase / DBF control, Variable B control	MAIN
IC401	LA7840L	Vertical deflection output	↑
IC501	SLA5070	S-correction switching	↑
Power circuit			
IC901	STR-G6551	Sub power control	STAND
IC921	431	5V output control	↑
IC951	MC33260P	Power factor control	MAIN
IC952	3842	Main power control	↑
IC953	7712/2412	12V regulator	↑
IC351	7812	12V regulator	↑
IC205	7805	12V regulator	STAND
IC703	29M33	3.3V regulator	CORRECTION
IC704	78M05	5V regulator	↑
IC503	7805	5V regulator	MAIN
Microprocessor circuit			
IC104	TMP47C24N	Sub microprocessor	STAND
IC301	TMP86PP11AN	Main Microprocessor	MAIN
IC302	M51951BSL/KJA7045P	5V watcher	↑
IC303	24C08	E ² PROM (DATA)	↑
IC102	24C21	E ² PROM (DDC)	STAND
IC103	24C21	E ² PROM (DDC)	↑
High voltage circuit			
IC502	MSPAD383	High voltage output control	MAIN
Video & Sync processing circuit			
IC101	M61323SP-600	Video input switch	STAND
IC105	74LS157	H-sync and S.O.G. input switch	↑
IC201	CXA2153S	Video pre-amplifier	↑
IC202	LM2412T	Video output	↑
IC203	M35047-057SP/063SP	On screen display control	↑
IC204	LM240NA	Cut-off control	↑
CRT circuit			
IC701	M62393P	D/A converter	CORRECTION
IC702	UPD61882	Digital signal processor	↑
IC705	LA6510/TA8410AK	POWER-OP-AMP (TILT/NS-RRC control)	↑
IC706	LA6510/TA8410AK	POWER-OP-AMP (BL/BR control)	↑
IC707	LA6510/TA8410AK	POWER-OP-AMP (TL/TR control)	↑
IC708	STK391-110	POWER-OP-AMP (H/V-convergence control)	↑
Additional function circuit			
IC601	AN7522	AUDIO-AMP	STAND
IC701	ISP1122	USB control	↑
IC702	PCF8582C	E ² PROM (USB)	↑
IC304	MIU-231	Terrestrial magnetic sensor	MAIN

Note: Specifications of Microprocessor are on next page.

Main microprocessor specifications

Pin	Name	Function	Pin	Name	Function
1	GND	GND	42	V-IN	V-SYNC signal input
2	X-IN	12MHz XTAL	41	H-IN	H-COMP / SYNC signal input
3	X-OUT	12MHz XTAL	40	V-OUT	V-SYNC signal output
4	TEST	GND	39	H-OUT	H-SYNC signal output
5	Vcc	5V	38	CLAMP	Video clamp signal output
6	CS7	Cushion-S switching signal 7 output	37	MODEL-SW	Model no. switching
7	CS1	Cushion-S switching signal 1 output	36	MODEL-SW	Model no. switching
8	RESET	Reset	35	DDC-SDA	DDC SDA
9	CS2	Cushion-S switching signal 2 output	34	DDC-SCL	DDC SCL
10	SIZE-PWM	PWM-H SIZE	33	E ² PROM-SDA	E ² PROM SDA
11	DEG	Degauss control signal output	32	E ² PROM-SCL	E ² PROM SCL
12	CS3	Cushion-S switching signal 3 output	31	SDA	IIC SDA
13	CS4	Cushion-S switching signal 4 output	30	SCL	IIC SCL
14	CS5	Cushion-S switching signal 5 output	29	SUB-SO	Sub microprocessor data-out
15	CS6	Cushion-S switching signal 6 output	28	SUB-SI	Sub microprocessor data-in
16	H-LIN1	H-LIN1 switching signal output	27	SUB-SCK	Sub microprocessor clock
17	DRIVE1	H-DRIVE1 switching signal output	26	H-LIN2	H-LIN2 switching signal output
18	X	Magnetism X detection	25	DRIVE2	H-DRIVE2 switching signal output
19	Y	Magnetism Y detection	24	DIAG	Automatic adjustment clock
20	FUNNEL	CRT funnel temperature detection	23	DATA-OUT	Automatic adjustment data input
21	Vref	5V	22	DATA-IN	Automatic adjustment data output

Sub microprocessor specifications

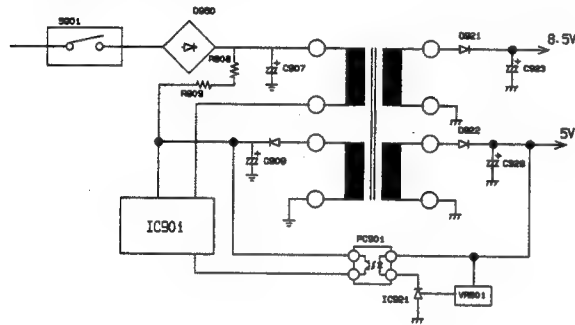
Pin	Name	Function	Pin	Name	Function
1	Vref	5V	28	VDD	5V
2	KEY1	Front key signal input (MENU/VIDEO)	27	GND	GND
3	KEY2	Front key signal input (UP/DOWN/LEFT/RIGHT)	26	GND	GND
4	TEMP	Surrounding temperature detection	25	GND	GND
5	NC	N.C.	24	GND	GND
6	VOLUME1	Volume control 1	23	GND	GND
7	SOG SW	S.O.G. Switching signal output	22	RESET	Reset
8	PS1	Main power on/off control signal output	21	X-OUT	4MHz XTAL
9	SIG-SEL	Video input terminal select signal output	20	X-IN	4MHz XTAL
10	VOLUME2	Volume control 2	19	TEST	N.C.
11	VOLUME3	Volume control 3	18	SUB-SCK	Main microprocessor clock
12	VOLUME4	Volume control 4	17	SUB-SO	Data output
13	LED	LED signal output	16	SUB-SI	Data input
14	VSS	GND	15	PS2	N.C.

(3) SUB POWER circuit

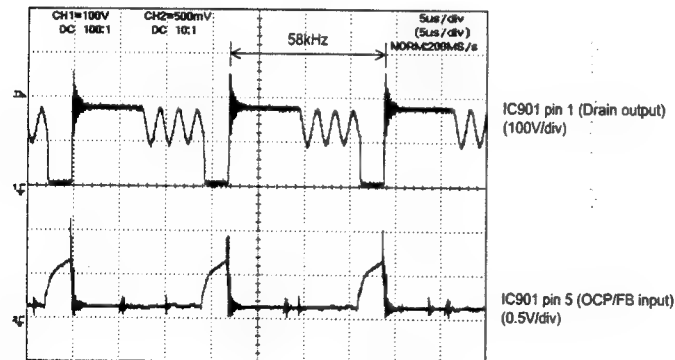
When AC input is supplied to SUB POWER circuit, start-up resistor R908 and R909 detect 4 pin of IC901 voltage (VCC-IN) and activate internal start circuit of IC901. When pin 4 of IC901 voltage turns to 16V, internal control circuit starts operation and auxiliary coil voltage between 2 and 3 pin of T901 (sub transformer) is up to approx. 18V, and SUB POWER circuit is activated. IC921 detects the load of 5V output voltage from the T901 secondary and controls the feedback current in PC901 (photocoupler) by fed back to 5 pin of IC901 (OCP/FB).

The T901 secondary provides the following DC voltages:

- ① 8.5V line: Supplied to the Heater voltage IC (IC920) and the Audio-Amp (IC601) as power source.
- ② 5V line: Supplied to the Microprocessor (IC301 and IC104), USB-IC (IC701), SW-IC (IC101) and 5V CONTROL circuit as power source.



<Waveform>



Note: Above waveform is switching waveform when USB peripherals are not connected.

(4) Power management modes

When IC301 (main microprocessor) detects presence of horizontal and vertical sync signal, control signal is output from IC104 (sub microprocessor). The control signal stops MAIN POWER circuit and decrease heater voltage, and power consumption is reduced.

<Power save control signals>

Mode	Sync signal	PS1	LED	Circuit
		IC104 pin 8	IC104 pin 13	
Normal	H,V-Sync: ON	HIGH	HIGH (Green)	All circuits are activated.
Power Management	H or V-Sync: OFF H and V-Sync: OFF	LOW	LOW (Orange)	Main power stops. (83V/32V/16V/-12V) Heater is off.

The power consumption under the power management mode is 3W or less when USB peripherals or audio equipment are not connected.

4-2. SYNC SIGNAL PROCESSING circuit

The input signal from D-SUB connector is set input condition of VIDEO IN 1 / 2 and sync signal by IC101 (VIDEO-SW-IC) and IC105 (SYNC-SW-IC), and input to pins 41 (H-IN) and 42 (V-IN) of IC301. The input H/V-sync signal is waveform-shaped and output from pins 39 (H-OUT) and 40 (V-OUT) of IC301, and then supplied to pins 26 (H-IN) and 27 (V-IN) of IC350 (H/V oscillation IC) to control the horizontal and vertical deflection.

The setting of signal input condition monitors H/V-sync signal applied to IC301, and output SIGNAL SELECT signal from pin 9 of IC104 and S.O.G. switching signal from pin 7 of IC104.

- (1) SIGNAL SELECT signal: Set VIDEO-IN 1/2 by controlling pin 13 of IC101.

D-SUB input	IC104 pin 9
VIDEO-IN 1	LOW
VIDEO-IN 2	HIGH

- (2) S.O.G. switching signal: Set SEP/COMP, S.O.G. by controlling pin 1 of IC105.

Sync signal input	IC104 pin 7
SEP/COMP input	LOW
S.O.G. input	HIGH

NOTE: S.O.G. switching signal is switched to LOW level when the H/V-sync signal is off, and switched to HIGH level when COMP signal is input to pin 41 of IC301.

- (3) The input sync signal to IC301 is processed by SYNC SIGNAL PROCESSING circuit in IC301 as follows:

- ① Discriminate the input sync signal type: Separate / Composite
- ② Discriminate the sync polarity: Positive / Negative
- ③ Detect the input sync signal presence
- ④ Count the frequency
Counting criterion: XTAL 12MHz (X301)

4-3. CONTROL circuits

(1) HORIZONTAL / VERTICAL OSCILLATION circuit

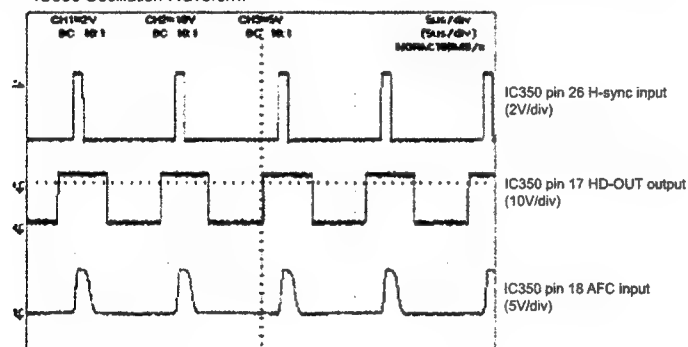
The H/V-sync signal input to IC350 is phase-sifted and converted to the waveform in IC350. The pulse synchronized with the horizontal sync signal is output from pin 17 as horizontal drive pulse. The sawtooth wave synchronized with the vertical sync signal is output from pin 4.

The pulse output from pin 17 generates a frequency locked to the input signal under the following conditions:

- ① The horizontal sync signal is input to pin 26.
- ② The vertical sync signal is input to pin 27.
- ③ The feedback pulse (AFC pulse) of the HORIZONTAL DEFLECTION OUTPUT circuit is input to pin 18.

IC350 (UPC1888DCT) is auto-sync system and adjusts the horizontal frequency automatically make the vertical sync signal input to pin 27 trigger. In case that the AFC pulse is not input, the output pulse from pin 17 is unlocked and the horizontal picture size changes with keeping it small and picture is not synchronized.

<IC350 Oscillation Waveform>

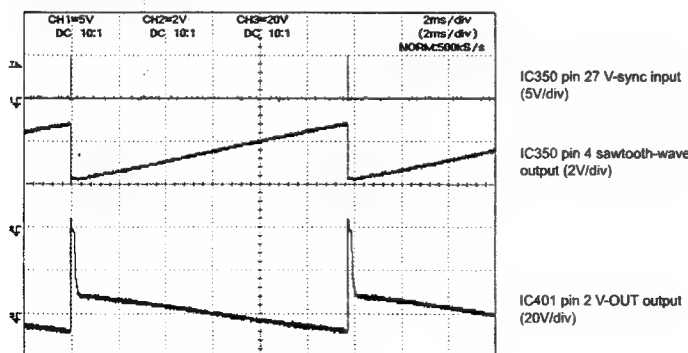


(2) VERTICAL DEFLECTION circuit

The sawtooth wave output from pin 4 of IC350 is amplified by IC401 (V-OUT-IC) and then supplied to the deflection yoke as a vertical deflection current to control the vertical deflection.

V-position is controlled by changing the DC component of the sawtooth wave output from pin 4.

<Vertical Waveform>



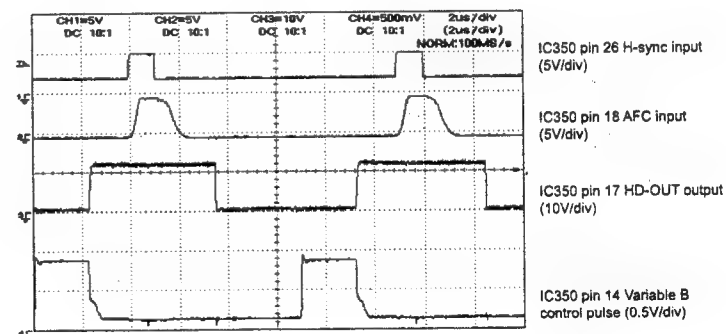
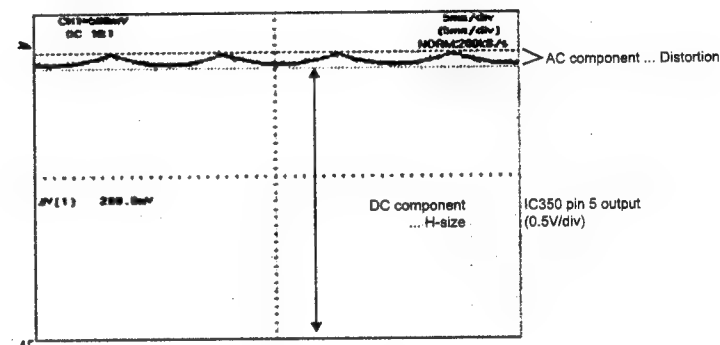
(3) HORIZONTAL SIZE and DISTORTION CONTROL circuits

The variable B voltage control pulse synchronized with the horizontal sync signal is output from pin 14 of IC350. The control pulse makes the PRESSOR CHOPPER circuit consisted of L956, Q953 and D970 output the variable B voltage of horizontal deflection output.

The horizontal size control voltage and distortion control parabolic wave output from pin 5 are input to pin 11 and then the output pulse of pin 14 controls the horizontal size and distortion as follows:

- ① H-size: The output duty of pin 14 is varied by the DC voltage input to pin 11.
- ② Distortion: The parabolic wave (AC component) input to pin 11 is synthesized with the output pulse of pin 14.

<Waveform>



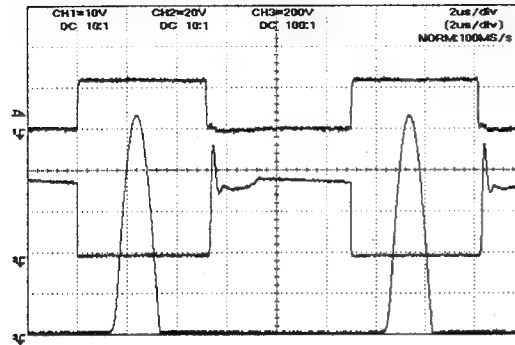
4-4. HORIZONTAL DEFLECTION circuit

(1) HORIZONTAL DRIVE circuit

The horizontal drive pulse output from pin 17 of IC350 is amplified by Q504 and T502 and then supplied to Q503 (H-OUT) base as a current.

The current is amplified by Q503 and then supplied to the deflection yoke as a horizontal deflection current to control the horizontal deflection.

<Vertical Waveform>



Q504 Gate input
(10V/div)

Q504 Drain output
(20V/div)

Q503 corrector output
(200V/div)

(2) HORIZONTAL LINEARITY CORRECTION circuit

The switching signal from IC301 controls H-LIN-COIL (L503, L504 and L507), S-correction capacitor (C510, C511, C512, C513, C514 and C557) and FET-ARRAY (IC501), and then correct linearity every frequency.

Each switching point performs horizontal linear and distortion correction as follows:

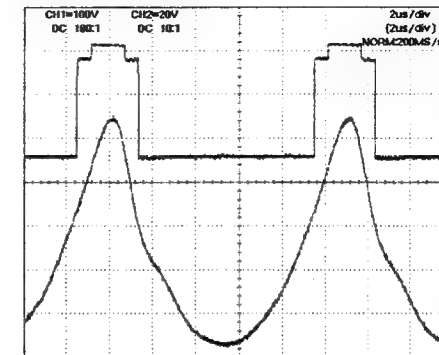
fH (kHz)	IC301 output pin								
	CS1 (Pin 7)	CS2 (Pin 9)	CS3 (Pin 12)	CS4 (Pin 13)	CS5 (Pin 14)	CS6 (Pin 15)	H-LIN1 (Pin 16)	H-LIN2 (Pin 26)	DRIVE (Pin 17)
29.5 - 34.0	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
34.1 - 41.0	LOW	LOW	HIGH	HIGH	HIGH	HIGH	LOW	LOW	LOW
41.1 - 45.0	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
45.1 - 49.0	HIGH	LOW	LOW	HIGH	LOW	LOW	LOW	HIGH	HIGH
49.1 - 59.0	HIGH	LOW	HIGH	HIGH	LOW	LOW	LOW	HIGH	HIGH
59.1 - 66.0	HIGH	HIGH	LOW	LOW	LOW	LOW	LOW	HIGH	HIGH
66.1 - 73.0	HIGH	HIGH	LOW	HIGH	LOW	LOW	LOW	HIGH	HIGH
73.1 - 84.0	HIGH	HIGH	HIGH	LOW	LOW	LOW	LOW	HIGH	HIGH
84.1 - 88.5	HIGH	HIGH	HIGH	LOW	HIGH	LOW	LOW	HIGH	HIGH
88.6 - 97.0	HIGH	HIGH	HIGH	HIGH	LOW	LOW	HIGH	HIGH	HIGH
97.1 - 115.0	HIGH	HIGH	HIGH	HIGH	HIGH	LOW	HIGH	HIGH	HIGH
115.1-140.0	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH

4-5. DYNAMIC BEAM FOCUS (DBF) circuit

(1) H-DBF

The parabolic wave of horizontal period is output from pin 9 of IC350 (HDFO) and then amplified by Q516 and Q517. It increases up to approx. 500Vp-p by T503 and synthesized with V-parabolic wave and then applied to pin 12 (DF) of T501 (FBT).

<H-DBF Waveform>



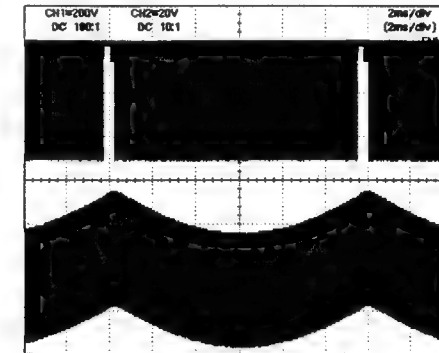
CRT cathode input
(H period)

T501 (FBT) pin 12 input
DBF horizontal element
(100V/div)

(2) V-DBF

The parabolic wave of vertical period is output from pin 8 of IC350 (VDFO) and then amplified by Q520. It is synthesized with H-parabolic wave.

<V-DBF Waveform>



CRT cathode input
(V period)

T501 (FBT) pin 12 input
(200V/div)

4-6. VIDEO circuit

(1) Pre-amp

The video signal from D-SUB connector via IC101 (SW-IC) is input to pins 1 (R-IN), 3 (G-IN) and 6 (B-IN) of IC201 pre-amplifier. This video signal is clamped by clamp signal input to pin 13 of IC201. The blanking signal input to pin 14 is synthesized with the clamped signal and then output from pins 29 (R-OUT), 27 (G-OUT) and 25 (B-OUT) respectively. The blanking signal is synthesized signal of V-BLK and H-BLK signals.

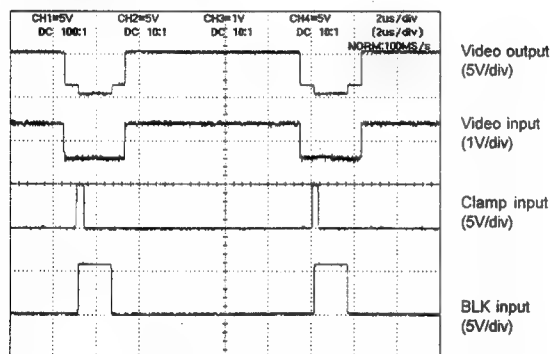
V-BLK signal: Remove the raster retrace line.

H-BLK signal: Remove the side raster rolling.

I²C-BUS controls D/A converter in IC201 as follows:

- ① Contrast
- ② Sub-brightness
- ③ R/G/B drive
- ④ OSD contrast
- ⑤ D/A output voltage for the CUT-OFF circuit

<IC201 Waveform>



(2) ABL

DC voltage input to pin 7 of IC201 controls the amplitude of the video output signal.

0.5V: The amplitude of the video output signal is 0%.

4.5V: The amplitude of the video output signal is 100%. (ABL is not activated.)

DC voltage is output by detecting the current input to T501 (FBT). This DC voltage controls the amplitude of the video output signal not to input more than specific current into FBT by inputting 7 pin of IC201.

(3) VIDEO-OUT and CUT-OFF circuits

The video signal input to pins 9 (R-IN), 8 (G-IN) and 11 (B-IN) of IC202 (VIDEO-OUTPUT) is amplified reversely and then output from pins 3 (R-OUT), 5 (G-OUT) and 1 (B-OUT) respectively.

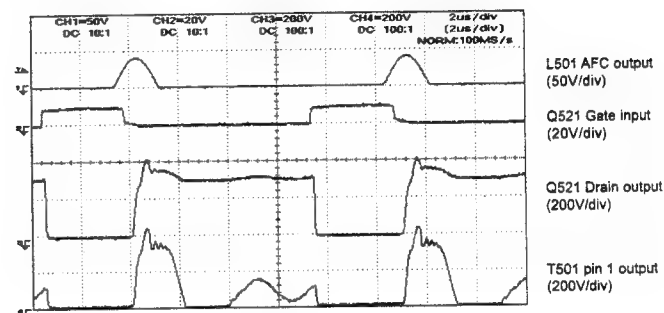
The R/G/B-cut-off and brightness D/A control voltages output from pins 18-21 of IC201 pre-amplifiers are amplified by IC204 (CUT-OFF-IC), and then added to the video signal from IC202 and supplied to the CRT cathode grid.

4-7. HIGH VOLTAGE CONTROL / OUTPUT circuit

The AFC pulse output from the HORIZONTAL DEFLECTION OUTPUT (L501) applied to pin 3 of IC502 (HV-CONT-IC) and then a control pulse synchronized with the frequency of the AFC pulse is output from pin 1 of IC502 and operate Q521 (HV-OUT).

For stabilizing high voltage output control, this circuit is to detect a feedback voltage from pins 10 and 11 of T501 (FBT) and feed back to pin 4 of IC502, change the output duty of pin 1 of IC502, and control the high voltage change due to the brightness changes.

<Waveform>



4-8. PROTECTION circuit

This circuit is composed of the following protection circuits to prevent a damage to the monitor and X-ray radiation when the monitor is inoperative.

When the circuit is in the following cases, pin 19 of IC350 (XRAY) turns to 5V and then the horizontal drive pulse output from pin 17 and the variable B control pulse output from pin 14 turn to "LOW" level (0V). It makes the HORIZONTAL DEFLECTION OUTPUT and the HIGH VOLTAGE OUTPUT circuits stop.

The signal that the X-RAY PROTECTION circuit is activated is sent to IC301 (Main Microprocessor) from IC350 by I²C-BUS when pin 19 turns to 5V. IC301 receives the signal and then PS1 signal of pin 8 of IC104 turns to "LOW" level so that the MAIN POWER circuit is turned off.

In case that the PROTECTION circuit is activated and the HORIZONTAL DEFLECTION OUTPUT, HIGH VOLTAGE OUTPUT and MAIN POWER circuits are turned off, turn OFF and ON the Power Switch to recover.

The PROTECTION circuit operates in the following cases:

- | | |
|-----------------------------|---|
| ① +B9 line: | The voltage is 270V or more. |
| ② X-RAY PROTECTION circuit: | The high voltage is 29.0kV or more. |
| ③ ARC LIMIT circuit: | The beam current in FBT is 3.0mA or more. |

4-9. CRT CORRECTION circuit

Following adjustment and functions are for CRT correction.

- ① DYNAMIC/STATIC-CONVERGENCE
- ② TILT-DY
- ③ NS-RRC
- ④ LANDING (TR/TL/BR/BL)

(1) DYNAMIC/STATIC-CONVERGENCE

The control voltage (AC) from IC702 is amplified by IC708 and applied to CONVERGENCE-COIL built-in CRT deflection yoke. It makes any points of DYNAMIC-CONVERGENCE change.
The DC voltage from pins 12 and 13 of IC701 is synthesized with the control waveform from IC702 and vary the DC component. It makes whole screen of STATIC-CONVERGENCE change.

(2) TILT-DY

DC voltage from pin 14 of IC701 is amplified by 7 pin of IC705 and applied to TILT-COIL of CRT deflection yoke. It makes CRT and DY tilt change.

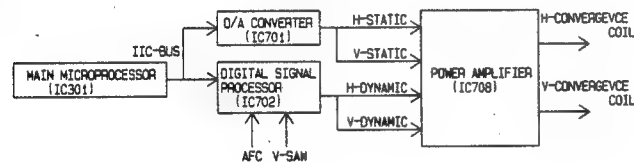
(3) NS-RRC

DC voltage from 15 pin of IC701 is amplified by pin 3 of IC705 and applied to NS-RRC COIL. It makes discoloration caused by vertical direction magnetic field for CRT face detected by IC304 (Terrestrial magnetic sensor) on PWB-MAIN.

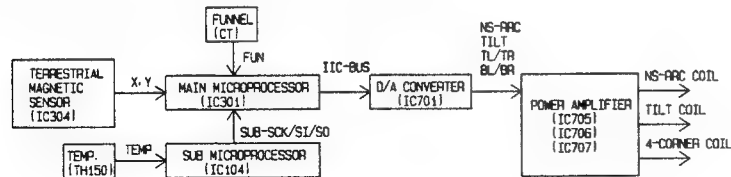
(4) LANDING (4 corner coils)

DC voltage from pins 4-7 of IC701 is amplified by pins 3 and 7 of IC706 and IC707, and applied to 4 corner coils. It makes discoloration caused by horizontal direction magnetic field for CRT face detected by IC304 (Terrestrial magnetic sensor) on PWB-MAIN, and CRT funnel temperature and surrounding temperature detected by temperature sensor.

<BLOCK DIAGRAM for DYNAMIC / STATIC-CONVERGENCE adjustment>



<BLOCK DIAGRAM for TILT-DY / NS-RRC / LANDING adjustment>



4-10. AUDIO circuit

The audio signal from CN602 (AUDIO-IN) is amplified by IC601 (AUDIO-AMP) and output to Speaker and Headphone jack.

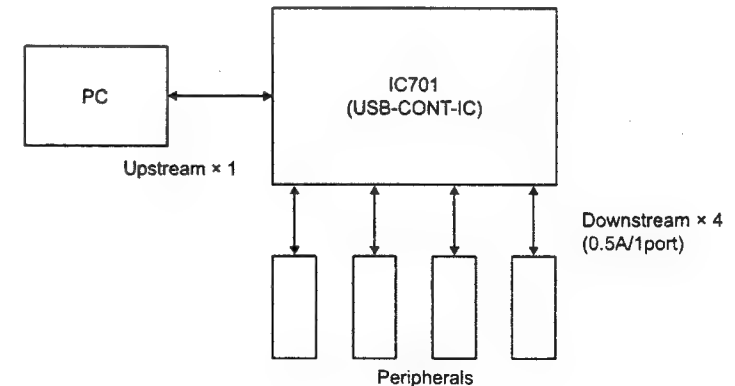
The VR voltage (0-1.2V) from pin 9 of IC601 switch output of pins 6, 10, 11 and 12 of IC104 to HIGH and LOW to control the volume.

IC601 is active under the power management mode.

Level	Input Voltage IC601 pin 9	IC104 output pin			
		Pin 6	Pin 10	Pin 11	Pin 12
0	0.020	LOW	LOW	LOW	LOW
1	0.046	HIGH	LOW	LOW	LOW
2	0.073	LOW	HIGH	LOW	LOW
3	0.104	HIGH	HIGH	LOW	LOW
4	0.135	LOW	LOW	HIGH	LOW
5	0.172	HIGH	LOW	HIGH	LOW
6	0.211	LOW	HIGH	HIGH	LOW
7	0.256	HIGH	HIGH	HIGH	LOW
8	0.292	LOW	LOW	LOW	HIGH
9	0.346	HIGH	LOW	LOW	HIGH
10	0.404	LOW	HIGH	LOW	HIGH
11	0.473	HIGH	HIGH	LOW	HIGH
12	0.546	LOW	LOW	HIGH	HIGH
13	0.636	HIGH	LOW	HIGH	HIGH
14	0.736	LOW	HIGH	HIGH	HIGH
15	0.861	HIGH	HIGH	HIGH	HIGH

4-11. USB circuit

This circuit detects connecting condition of the upstream port (CN701 UP) from PC and the downstream port (CN702 and CN703) from peripherals and communicate with PC. USB cable (series A/B) is composed of V, GND, +D and -D signals. The condition of connection is judged from by detecting data transfer rate of peripherals connected by +D and -D combination at IC701.



5. SERVICE PARTS LIST

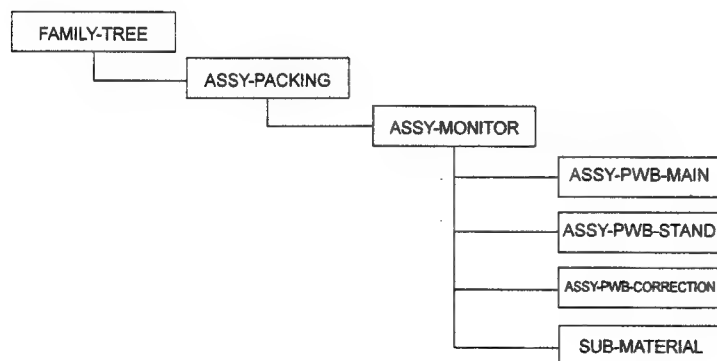
WARNING !

The components identified by "*" in this manual are critical for safety.
Replace only with part number specified .

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Abbreviations and Marks.....	33
FAMILY-TREE.....	34
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< Structure >



ELECTRICAL PARTS LIST

< Abbreviations in PART section >

Abbreviation	Meaning
R-C	Resistor-Carbon
R-MB	Resistor-Metal
R-FUSE	Resistor-Fuse
C-C	Capacitor-Ceramic
C-E	Capacitor-Electrolytic
C-PP	Capacitor-Polypropylene
C-MF	Capacitor-Multilayer Metallized Polyester Film
D	Diode
ZD	Zener Diode
TR	Transistor
PHC	Photo Coupler
PTH	Positive Thermistor
HDT	Horizontal Drive Transformer
FBT	Flyback Transformer
VR	Variable Resistor
SW	Switch
SWT	Switching Transformer

< Marks in DESCRIPTION section >

< Resistor >

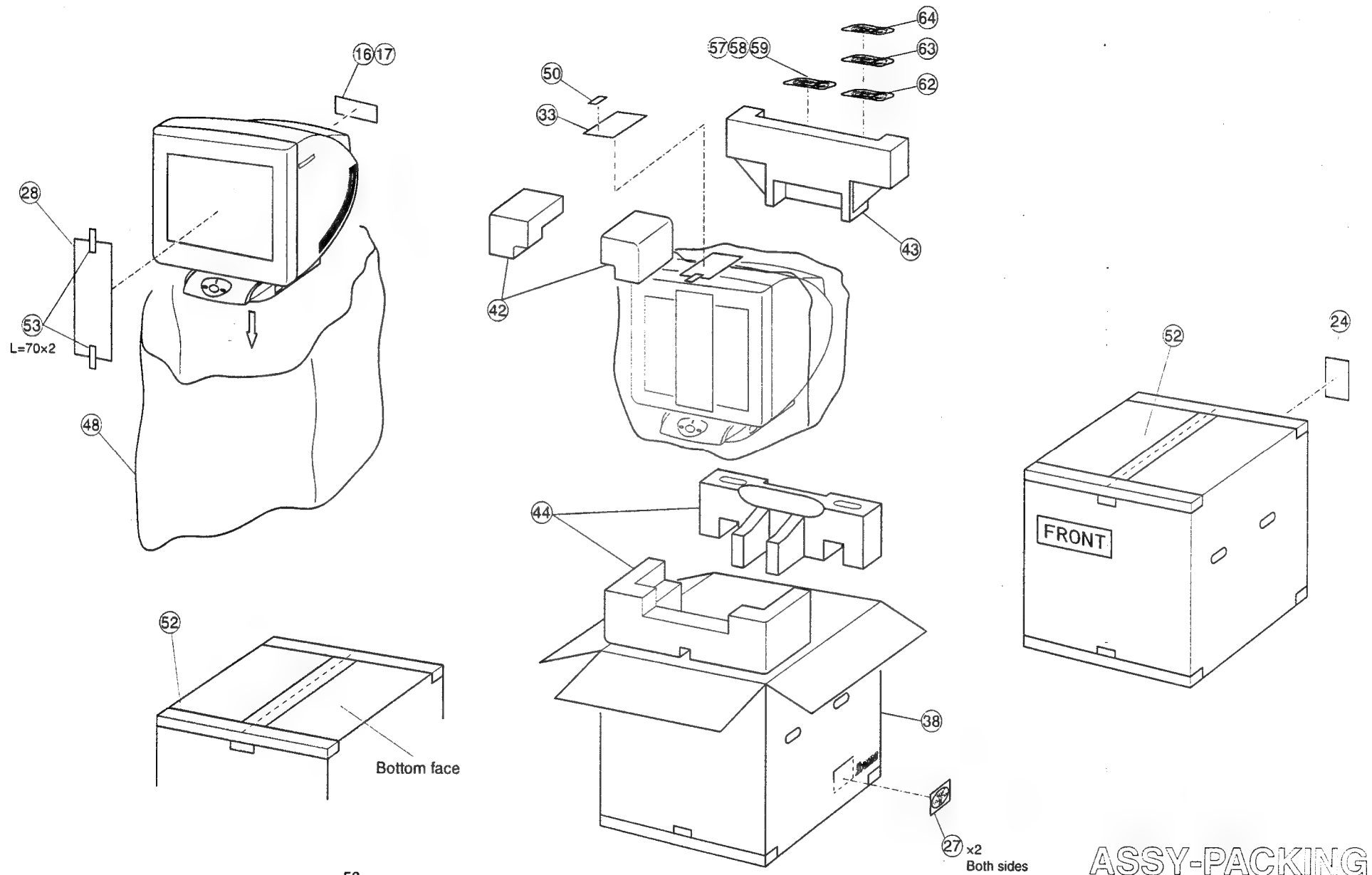
Mark	Tolerance
F	± 1%
J	± 5%
K	±10%

< Capacitor >

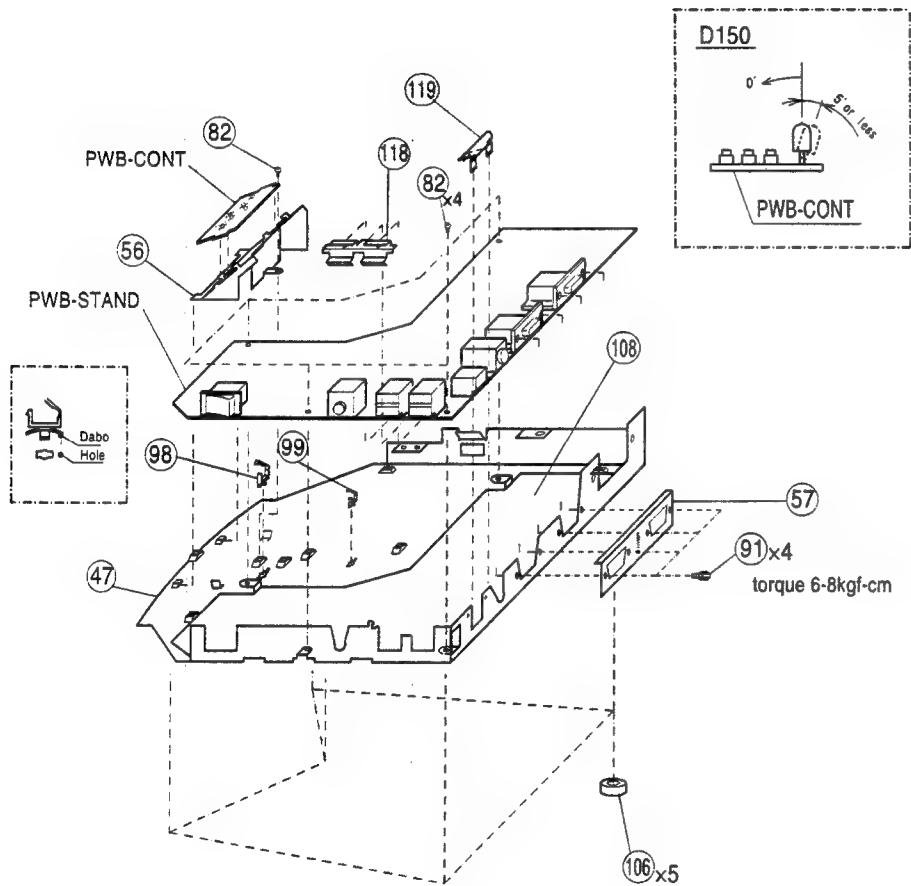
Mark	Tolerance
H	± 3%
J	± 5%
K	± 10%
M	± 20%
P	+100%
	- 0%
Z	+ 80%
	- 20%

6. EXPLODED VIEW

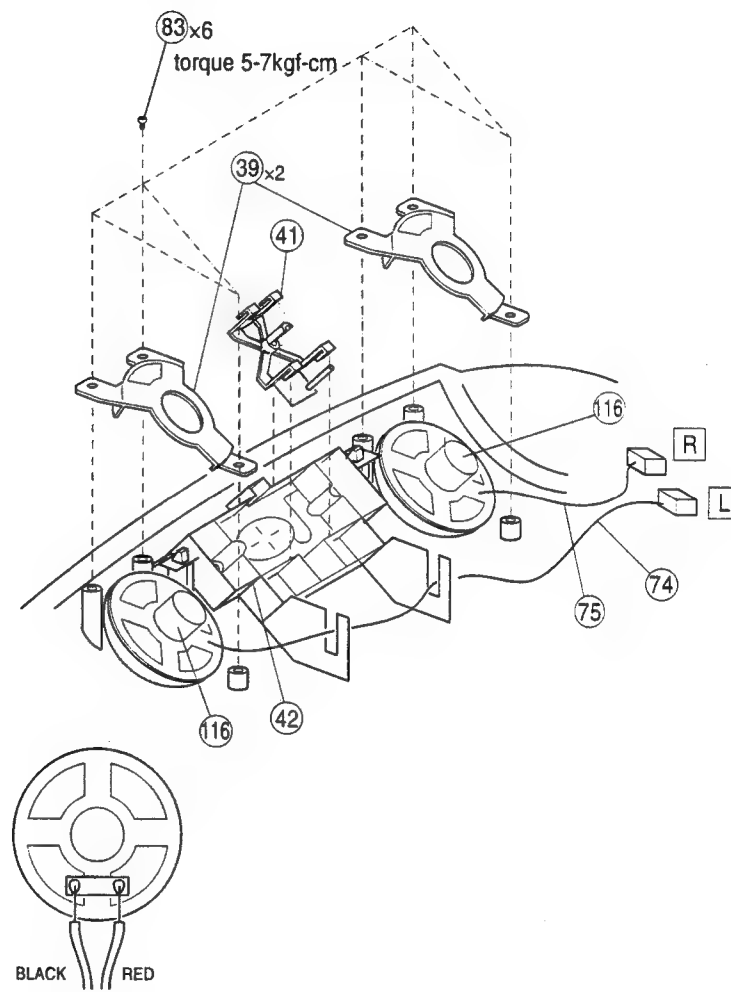
Note: The numbers in this exploded view are the same as the reference numbers in the Chapter 5.



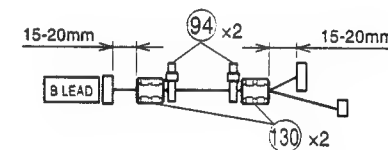
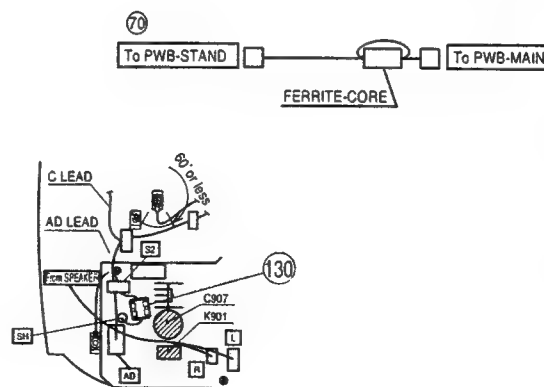
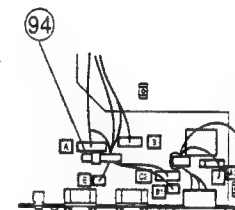
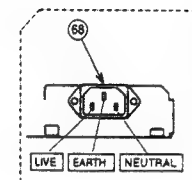
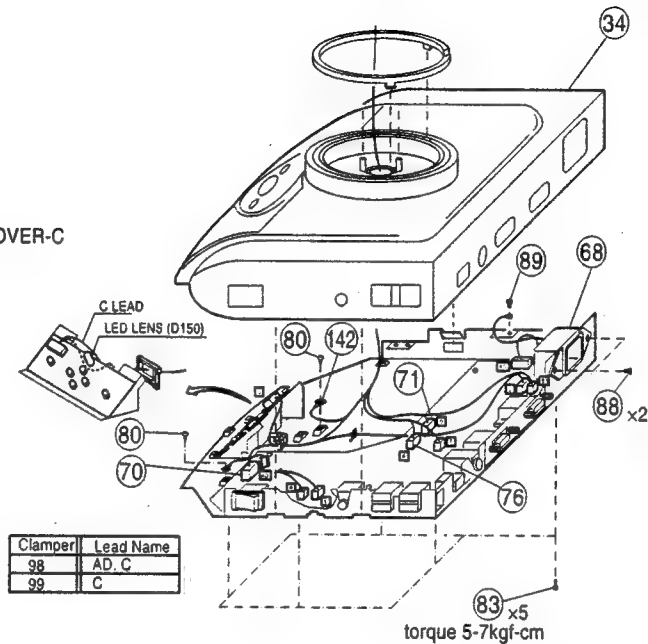
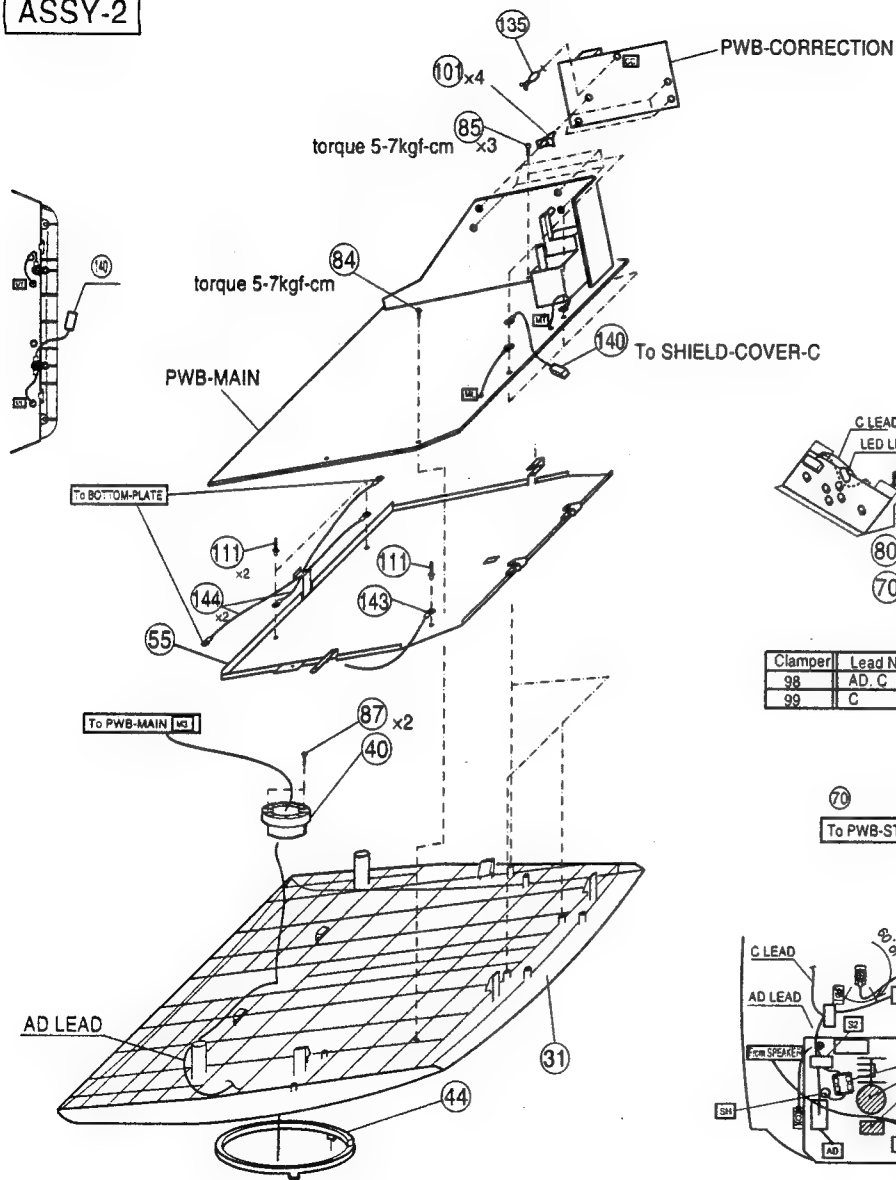
ASSY-1



Note: Except where indicate otherwise, all screw torque is 9-11kgf-cm in ASSY-MONITOR.

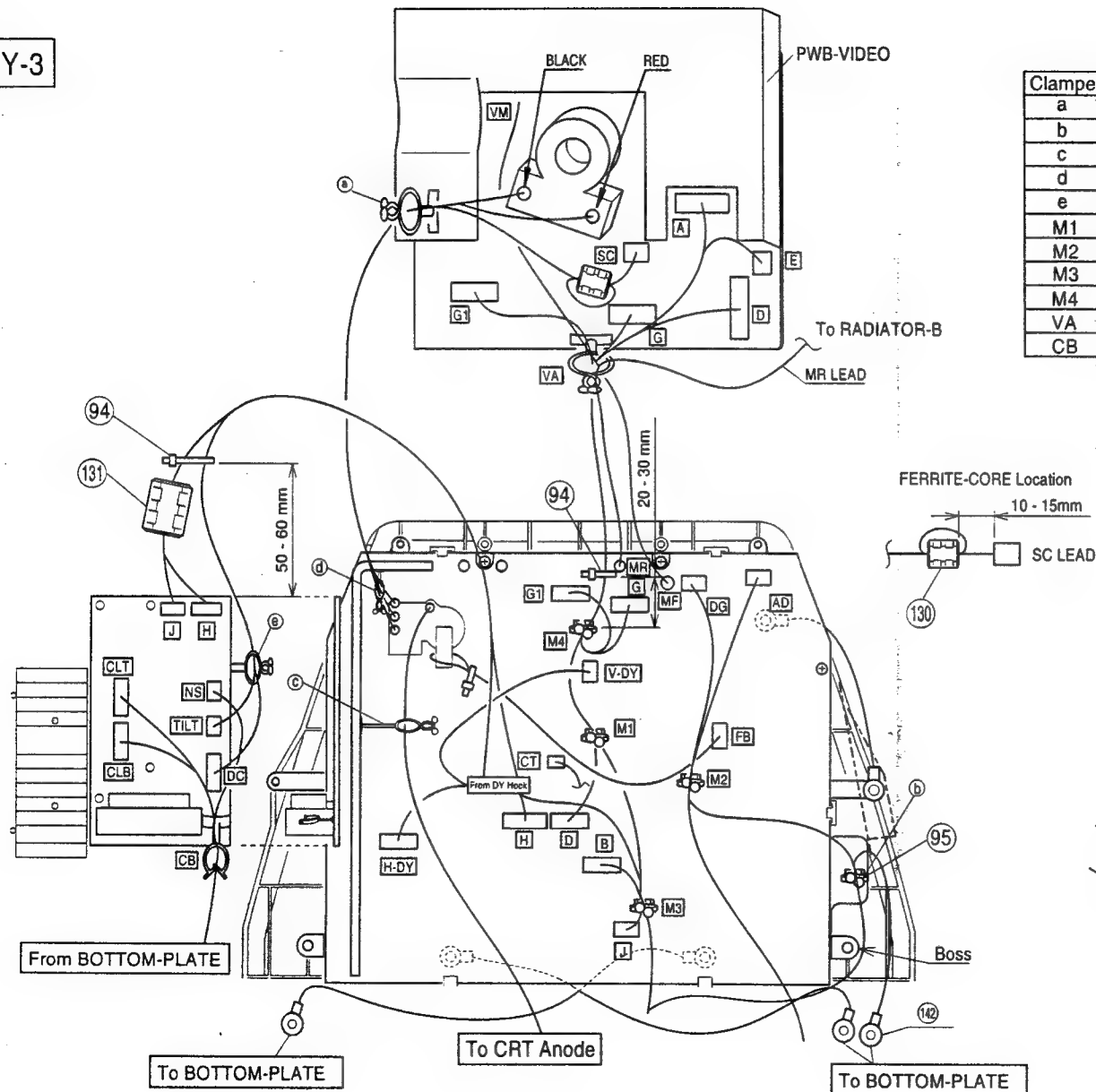


ASSY-2

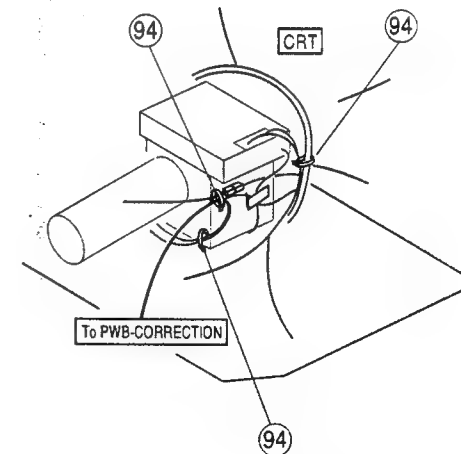
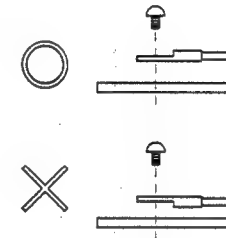


ASSY-MONITOR

ASSY-3

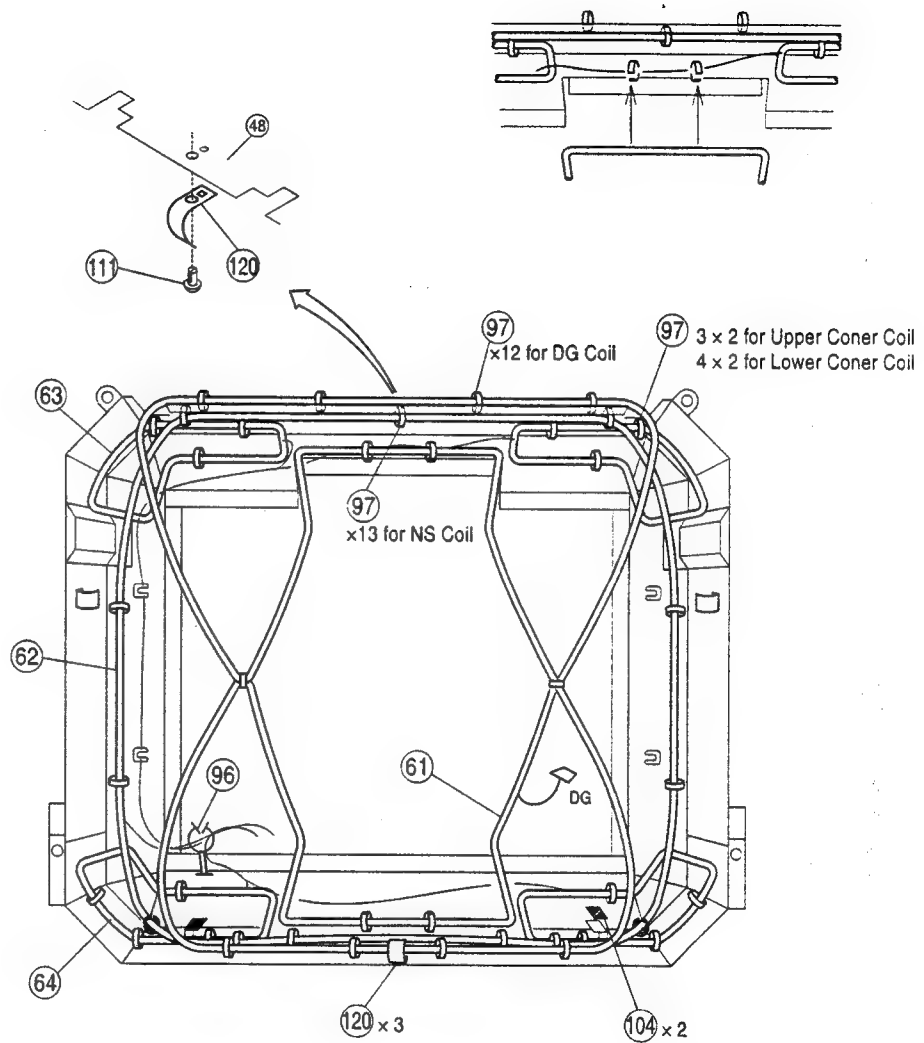
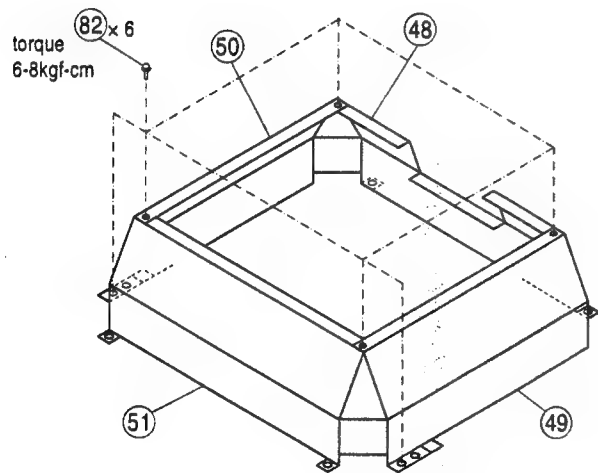
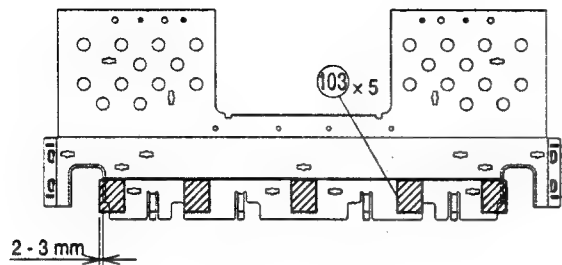


Clamper	Lead Name
a	SC, Focus
b	AD, 142
c	Anode
d	SC, Focus
e	TILT, DC
M1	A, D
M2	AD, DG
M3	A, J, B
M4	A, D, G, G1
VA	D, G, G1, VM
CB	CLT, CLB, NS



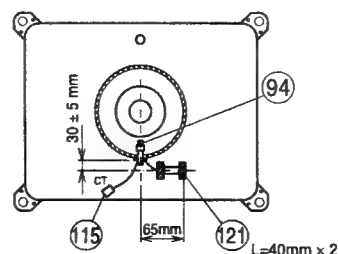
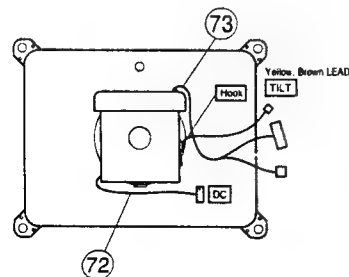
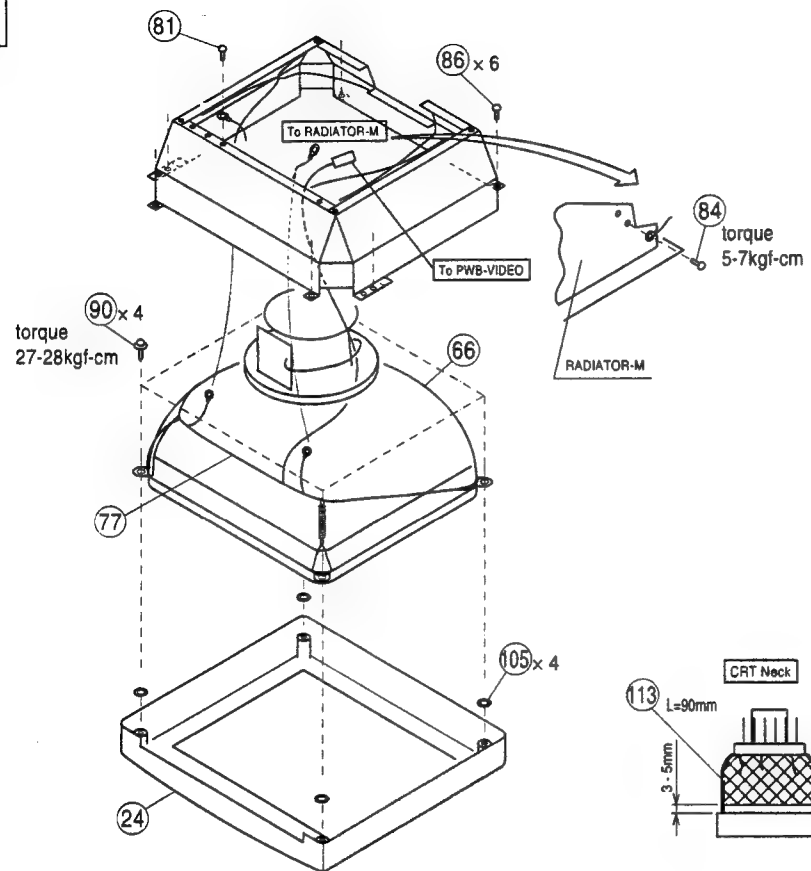
ASSY-MONITOR

ASSY-4

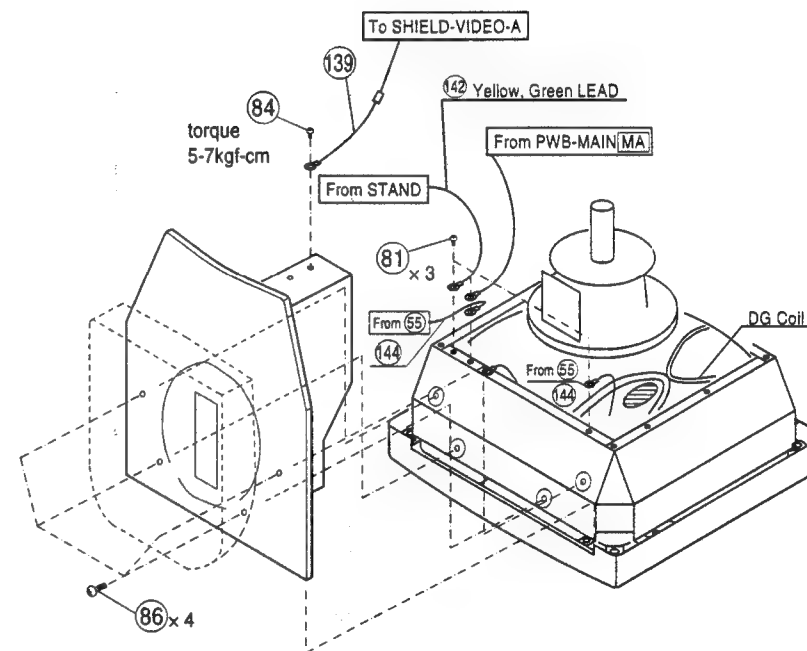


ASSY-MONITOR

ASSY-5

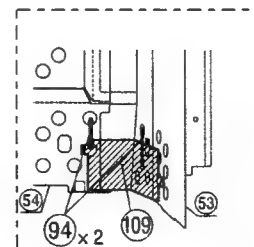
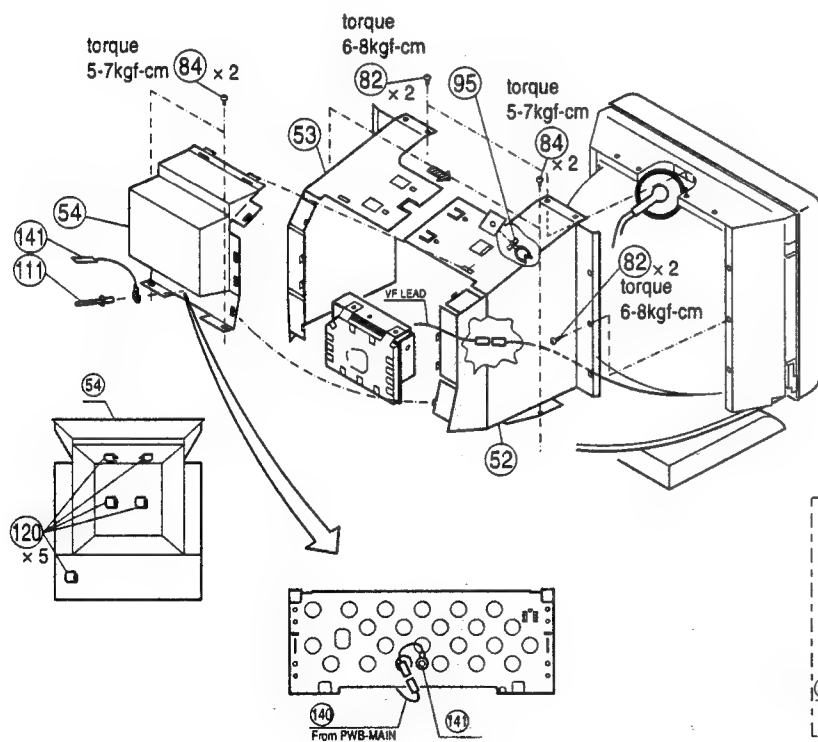
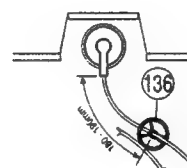
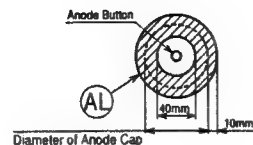
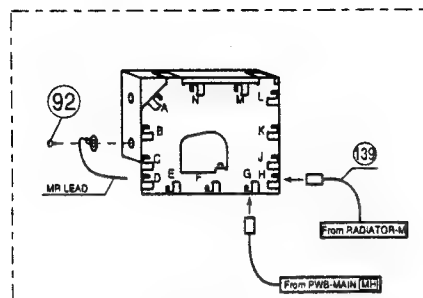


ASSY-6

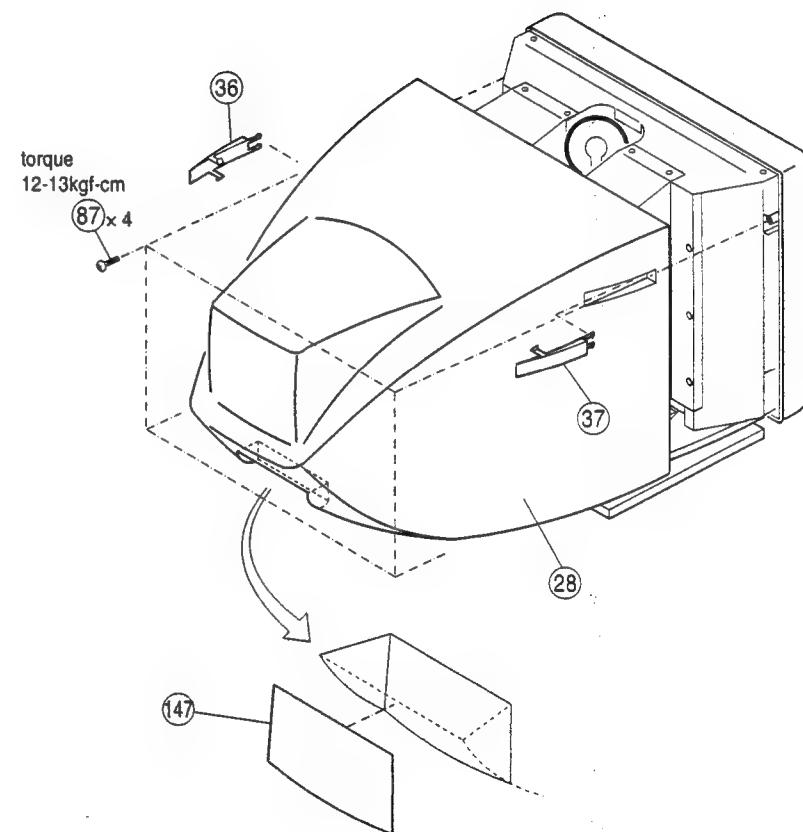


ASSY-MONITOR

ASSY-7

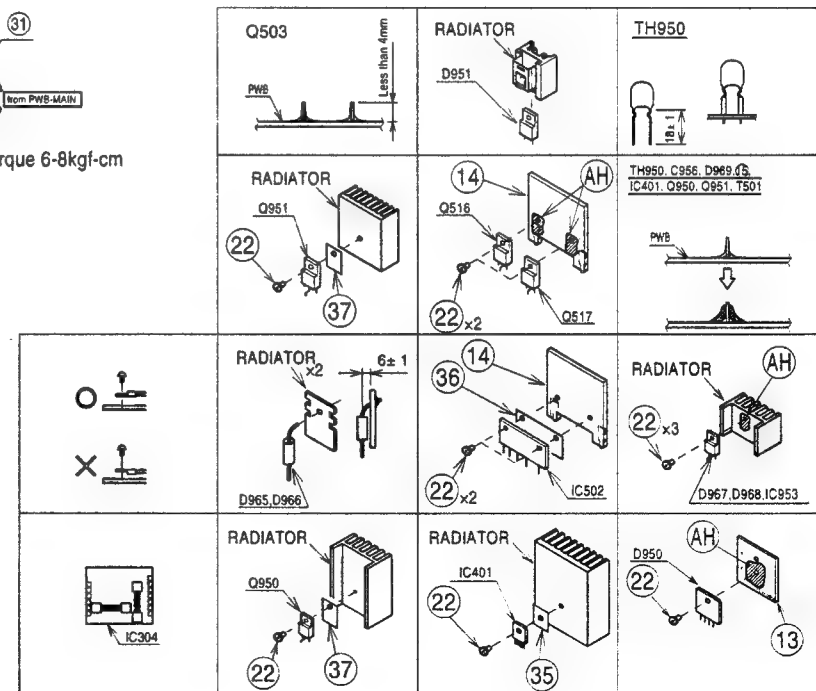
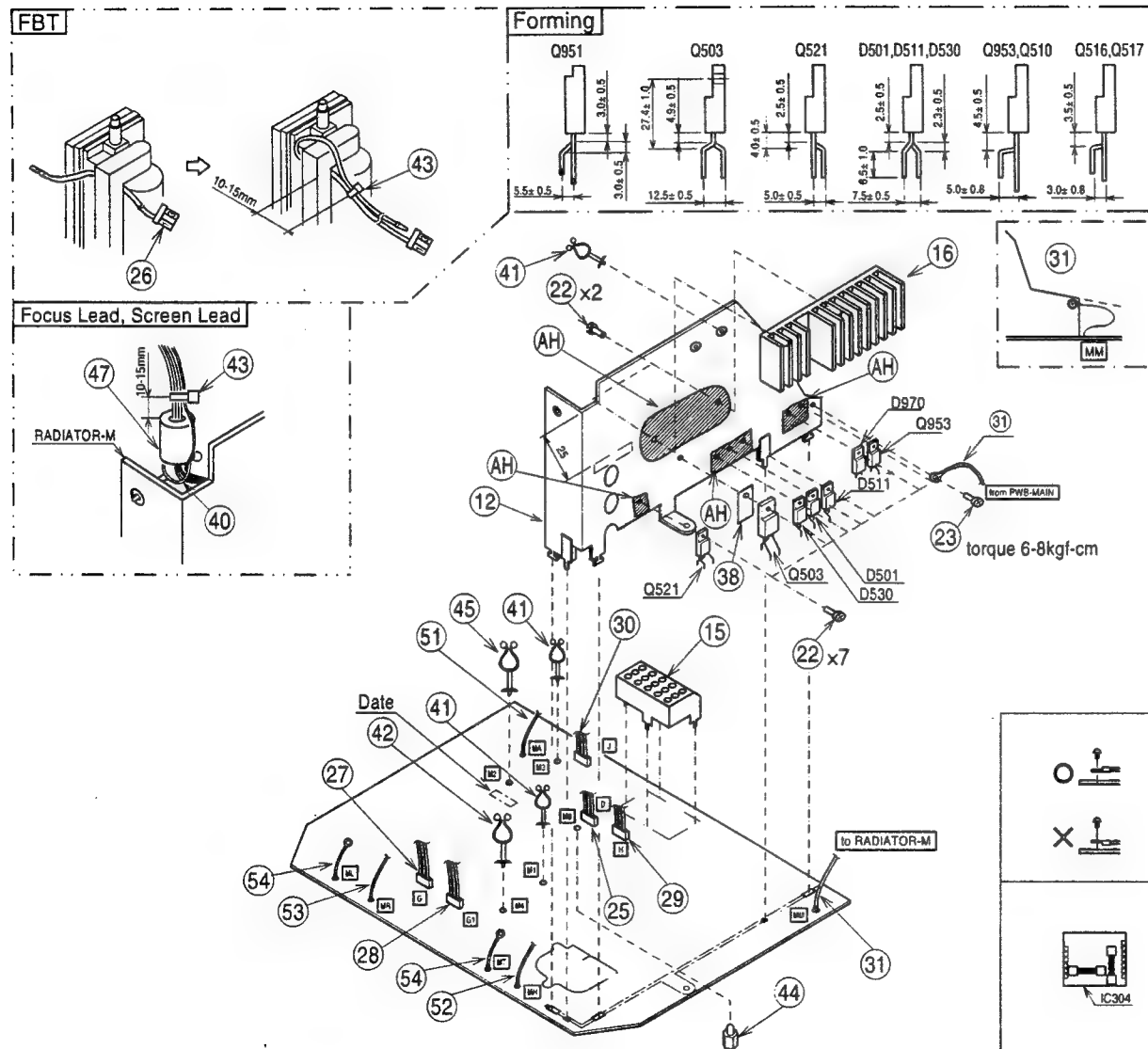


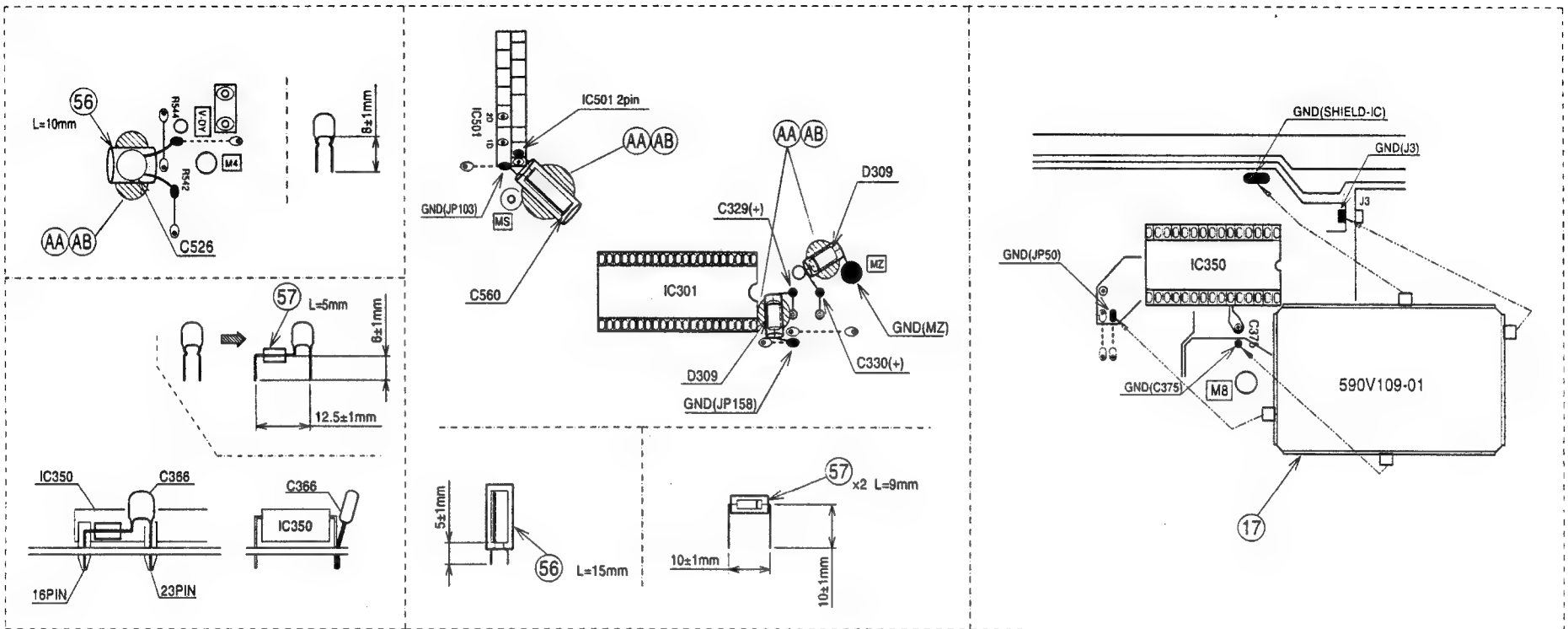
ASSY-8



ASSY-MONITOR

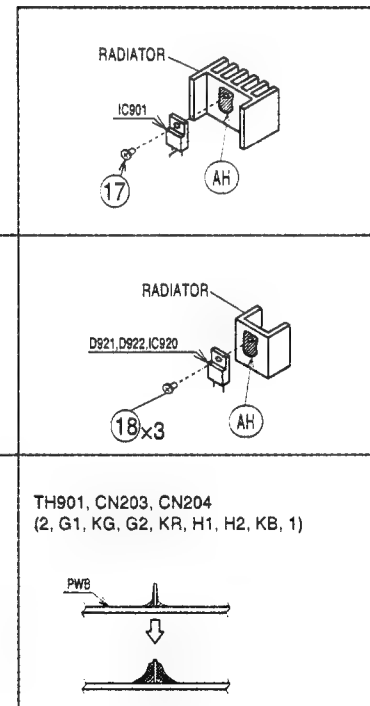
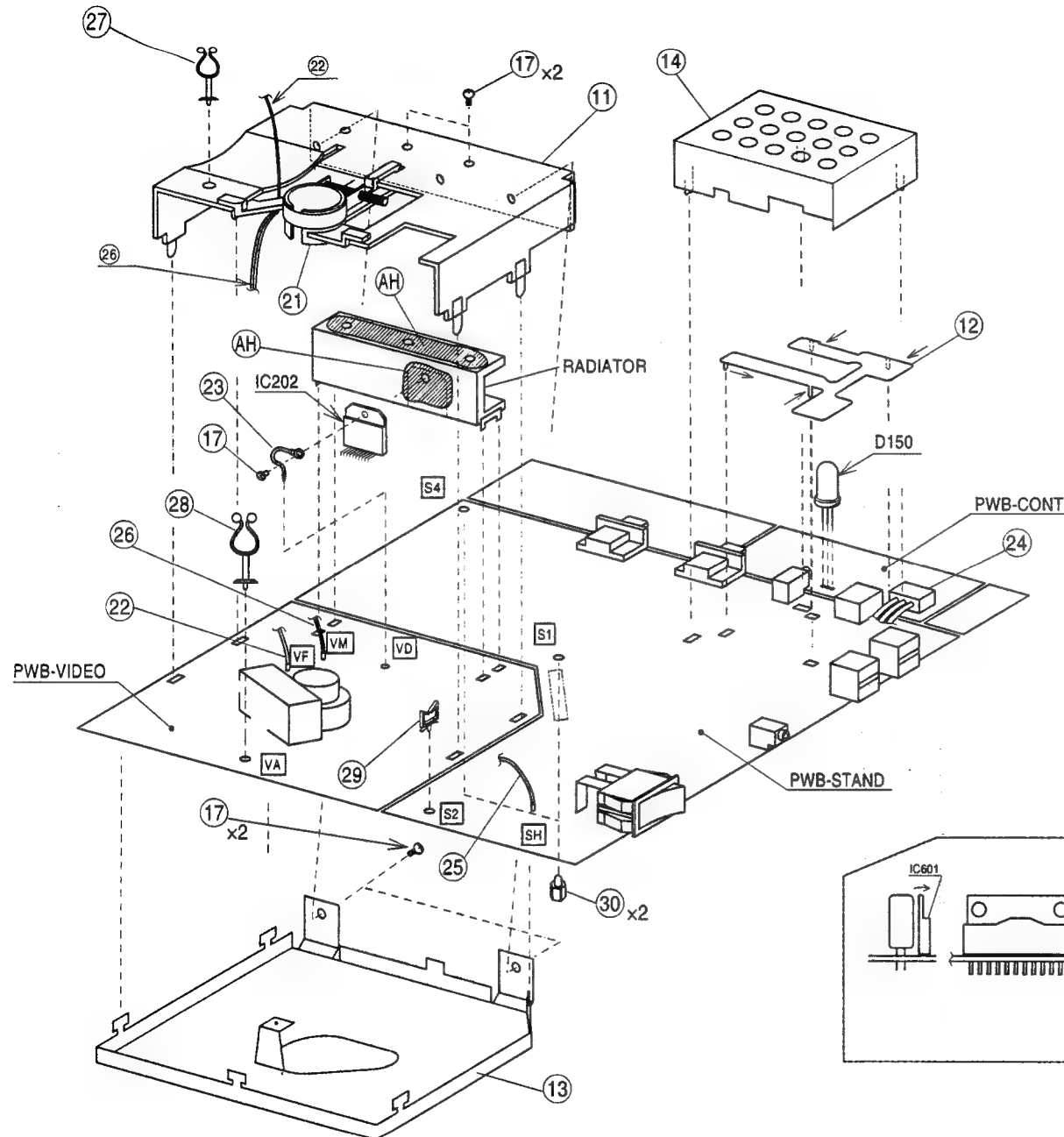
Note: Except where indicate otherwise, all screw torque is 3-5kgf-cm in ASSY-PWB-MAIN.





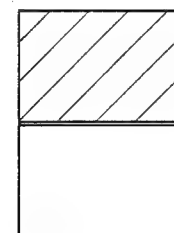
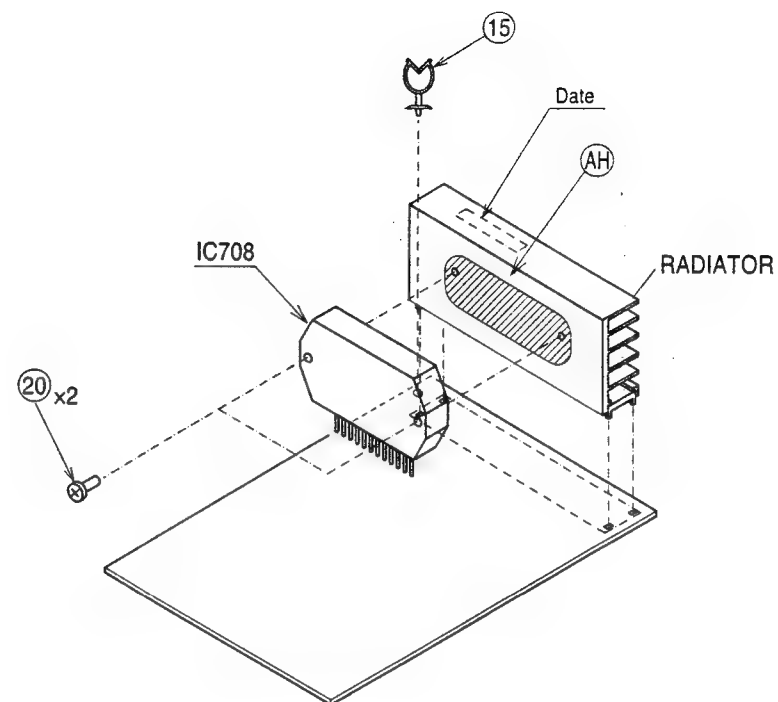
ASSY-PWB-MAIN

Note: Except where indicate otherwise, all screw torque is 3-5kgf-cm in ASSY-PWB-STAND.



ASSY-PWB-STAND

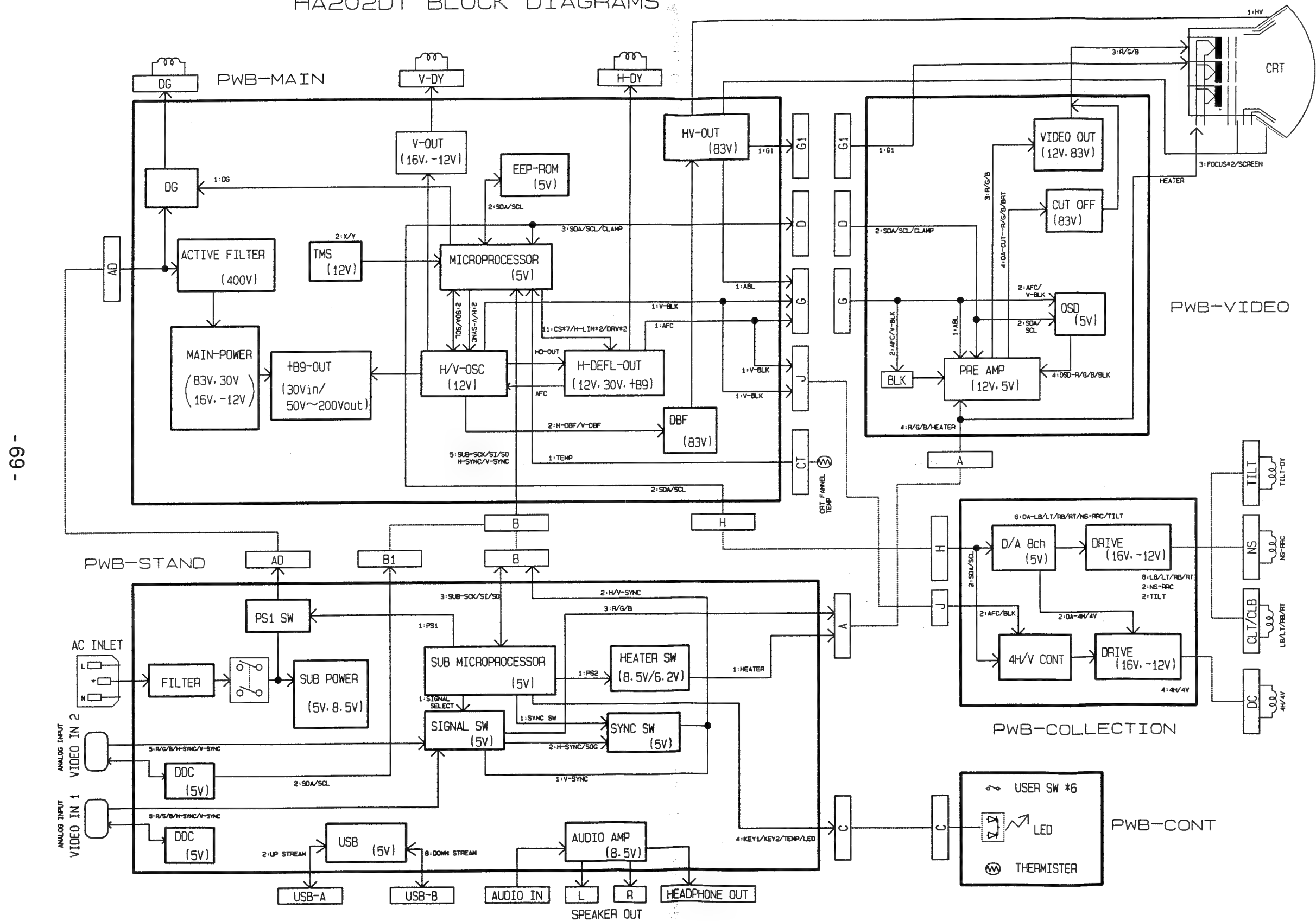
Note: Except where indicate otherwise, all screw torque is 3-5kgf-cm in ASSY-PWB-CORRECTION.

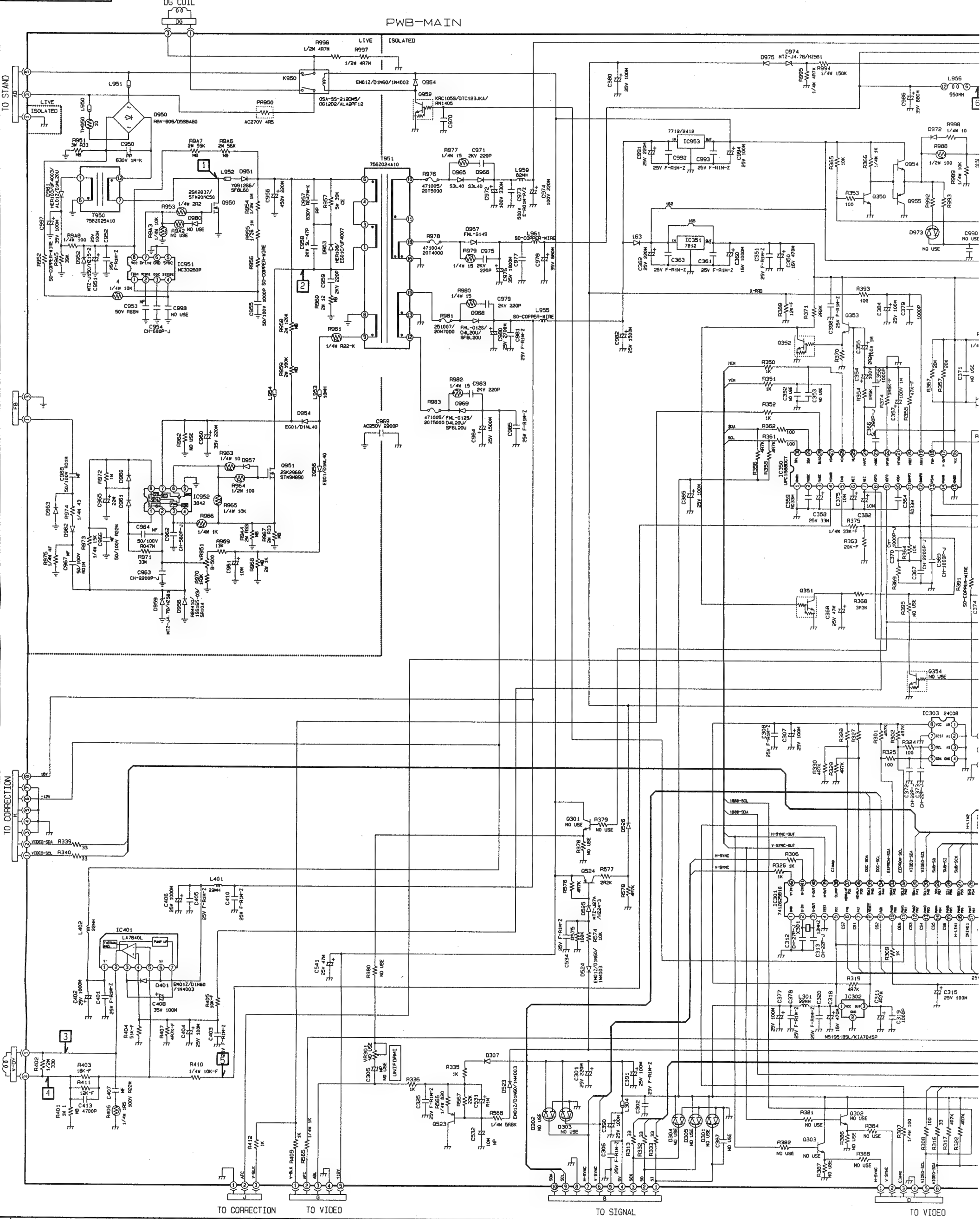


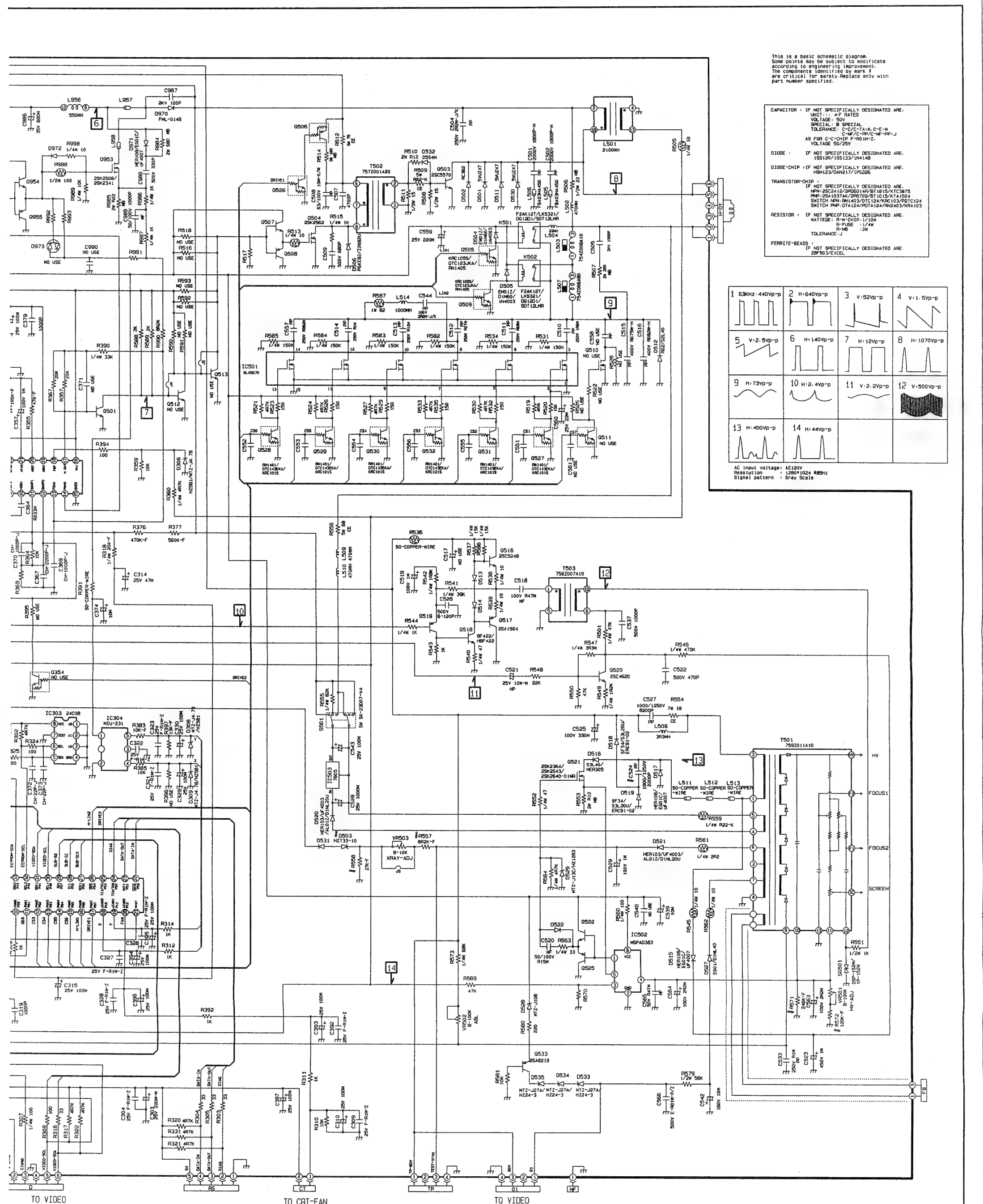
ASSY-PWB-CORRECTION
- 68 -

7. DIAGRAMS

HA202DT BLOCK DIAGRAMS



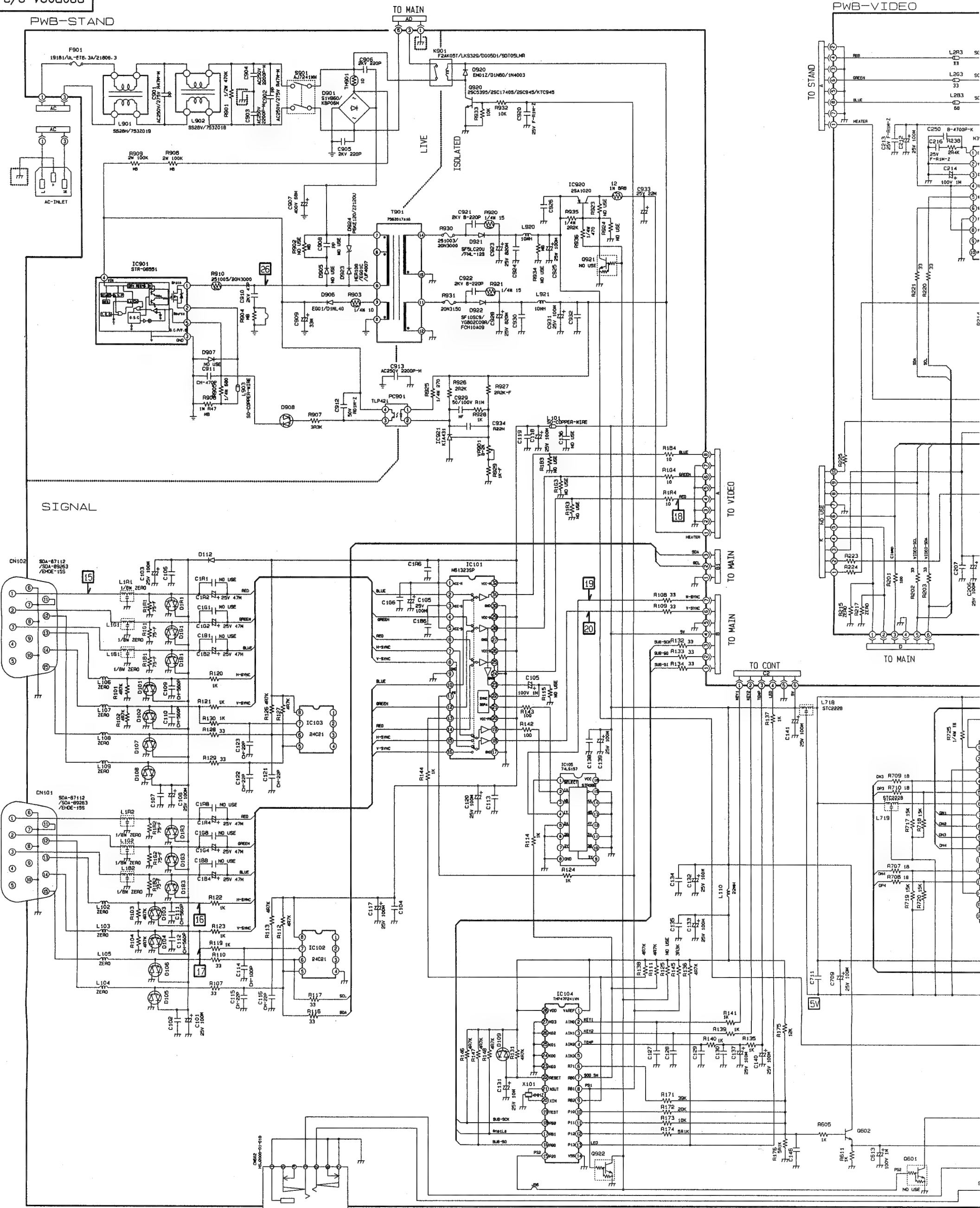


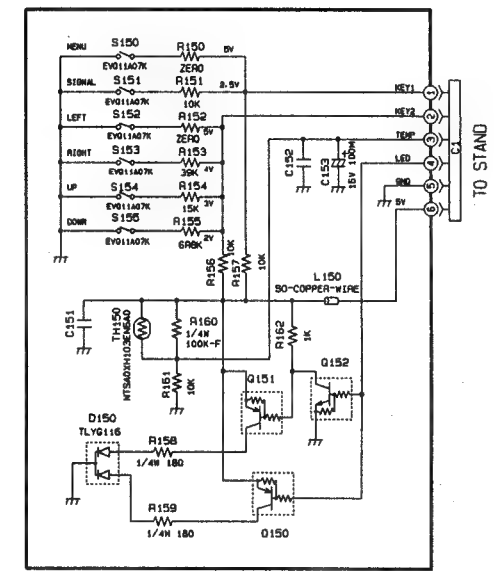
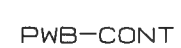


50		IIYAMA CORPORATION				DRAWING TITLE			
40		DATE 2001 - 6 - 22		PARTS-LIST REV. ^		CIRCUIT DIAGRAM			
30		DRAWN	DESIGNED	CHECKED	APPROVED	DRAWING NO.			
20									
10									
GROUP NO.	APPLICABLE MODEL NO.	M. SHIMODA	M. SHIMODA			980S021	1	1/3	

PWB-STAND

PWB-VIDEO





CAPACITOR : IF NOT SPECIFICALLY DESIGNATED ARE:
UNIT : μ F RATED
VOLTAGE : 50V
SPECIAL : B SPECIAL
TOLERANCE : C-C-TANH, C-E-H
C-M-C
VS FOR C-C-CHIP F-R-M-Z
VOLTAGE : 25V

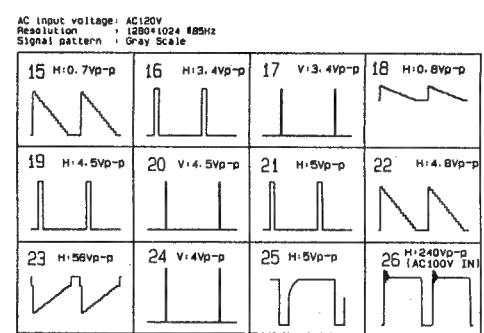
DIODE : IF NOT SPECIFICALLY DESIGNATED ARE:
1N4148/1SS133/1SS130

DIODE-CHIP : IF NOT SPECIFICALLY DESIGNATED ARE:
5M123/DN217/1P2526

TRANSISTOR-CHIP : IF NOT SPECIFICALLY DESIGNATED ARE:
PNP : BT1615/2SC2412/KTC3875/S9061
PNP : BT101/2SA1037/KTA150/S9079
SWITCH : NPN : KRC103/OTC124/7N143/OTC124
SWITCH : PNP : KRA103/OT124/7N143/OT124

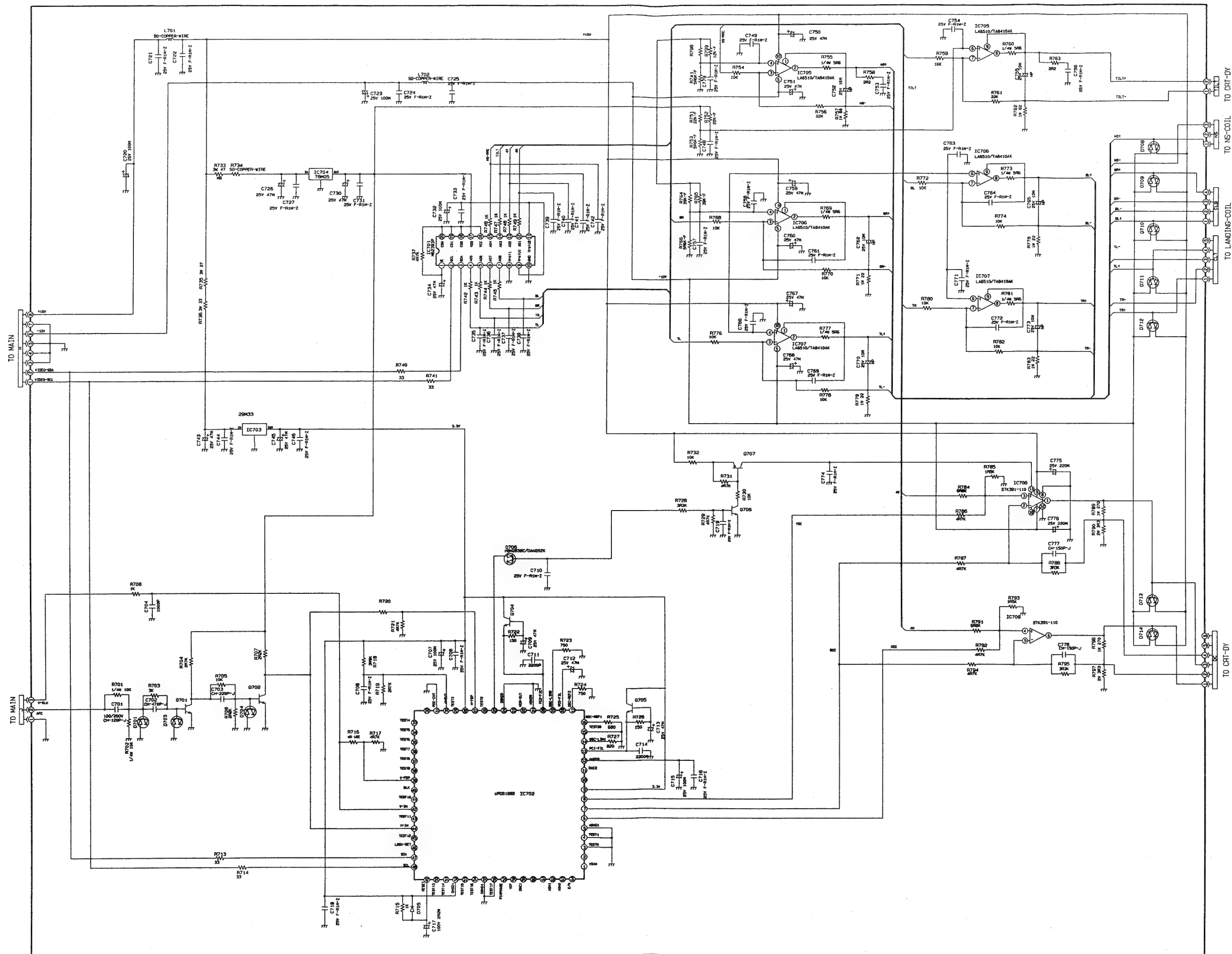
RESISTOR : IF NOT SPECIFICALLY DESIGNATED ARE:
MATEIR : R-M-CHIP : 1/10W
R-USE : 1/4W
TOLERANCE : J

FERRITE-BEADS : IF NOT SPECIFICALLY DESIGNATED ARE:
2B3503/EXCEL



50	IIYAMA CORPORATION				DRAWING TITLE					
40					CIRCUIT DIAGRAM					
30	DATE 2001-06-25		PARTS-LIST REV. 子							
20	DRAWN	DESIGNED	CHECKED	APPROVED						
10	M. SHIMODA		M. SHIMODA		980R021 2/3					
GROUP NO.	APPLICABLE MODEL NO.									

PWB-CORRECTION



This is a basic schematic diagram. Some points may be subject to modification according to engineering improvement. The components identified by mark 2 are critical for safety. Replace only with part number specified.

CAPACITOR : IF NOT SPECIFICALLY DESIGNATED ARE
UNIT : μ F RATED
VOLTAGE : 50V
SPECIAL : B SPECIAL
TOLERANCE : C-C/C-TA/K-C-E/H
C-M/C-PP/C-M-PP/J

DIODE : IF NOT SPECIFICALLY DESIGNATED ARE
IS4123/DNA427/1PS226

TRANSISTOR IF NOT SPECIFICALLY DESIGNATED ARE
 MN: 2SC2412/2P05010A
 PNP: 2SA1933/2SA933AS/2SA733/KA7
 SWITCH NPN:DTC124/UN212/PW1403
 /POTC124
 SWITCH PNP:PN2203/DTA124

RESISTOR : IF NOT SPECIFICALLY DESIGNATED ARE
WATTAGE: R-C/R-M/R-FUSE: 1/10W
TOLERANCE: J

DWG. TITLE : FAMILY-TREE

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1			ASSY-PACKING	(HNE/JF)	T985T042-20		
1			ASSY-PACKING	(HNB/JF)	T985T042-30		
1			ASSY-PACKING	(LNN/JF)	T985T042-40		
1			ASSY-PACKING	(HNE/EY)	T985T042-50		
1			ASSY-PACKING	(HNB/EY)	T985T042-60		
1			ASSY-PACKING	(LNN/EY)	T985T042-70		
1			ASSY-MONITOR		T950R116-20		
1			ASS-PWB-MAIN		T950T068-10		
1			ASSY-PWB-STAND		T950T069-10		
1			ASSY-PWB-CORRECTION		T950V071-10		
1			SUB-MATERIAL		951V001-10		

DWG. TITLE : ASSY-PACKING

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		16	RATING-PLATE	(JF)	706Z069-01		!
1		17	RATING-PLATE	(EY)	706Z069-02		!
1		24	SERIAL-LABEL		851T013-46		!
2		27	LABEL		851Z018-01		
1		28	ATTENTION-SHEET		870Z112-01		!
1		33	OPERATION-MANUAL		870Z166-01		!
1		38	PACKING-CASE		800Z046-02		
1		42	CUSHION-TOP		803S065-03		
1		43	CUSHION-TOP		803S065-01		
1		44	CUSHION-BOTTOM		803S065-04		
1		48	PACKING-BAG		831V005-12		
#		50	SELLO-TAPE	NO.252/CT07 L=80mm	830Z003A01		
#		52	CARTON-TAPE	NO.3201/NO.3303M/4266/123 L=4300mm	830Z012A01		
#		53	HOLDING-TAPE	NO.3800A L=140mm	830Z005A01		
1		57	AC-CORD	(HNE)	500Z005-02		!
1		58	AC-CORD	(HNB)	500Z007-02		!
1		59	AC-CORD	(LNN)	500Z012-01		!
1		62	SIGNAL-CABLE		242Z013-01		!
1		63	SIGNAL-CABLE		242Z027-01		!
1		64	AUDIO-CABLE		242Z028-01		!

DWG. TITLE : ASSY-FWB-CORRECTION

QTY	REV.	REF NO	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		15	CLAMPER	SHK-5	5402080A02		1
2		20	SCREW	MP-SEMS-B318MC-S	8302301B16		
1		C701	E-C-CHIP	100200V CH-120P-J	4102121A54		
1		C702	C-C-CHIP	50V CH-470P-J	4102471B14		
1		C703	C-C-CHIP	50V CH-220P-J	4102221B14		
1		C704	C-C-CHIP	50V B-1000P-K	4112102B14		
1		C706	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C707	C-E	25V 100M-M	4702101T43		
1		C708	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C709	C-E	25V 47M-M	4702470T43		
1		C710	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C711	C-C-CHIP	50V B-220P-K	4112222B14		
1		C712	C-E	25V 47M-M	4702470T43		
1		C713	C-E	25V 47M-M	4702470T43		
1		C714	C-C-CHIP	50V B-220P-K	4112222B14		
1		C715	C-E	25V 100M-M	4702101T43		
1		C716	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C717	C-E	100V 2R20-M	4602220B83		
1		C718	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C719	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C720	C-E	25V 100M-M	4702101T43		
1		C721	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C722	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C723	C-E	25V 100M-M	4702101T43		
1		C724	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C725	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C726	C-E	25V 47M-M	4702470T43		
1		C727	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C730	C-E	25V 47M-M	4702470T43		
1		C731	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C732	C-E	25V 100M-M	4702101T43		
1		C733	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C734	C-E	25V 47M-M	4702470T43		
1		C735	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C736	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C737	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C738	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C739	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C740	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C741	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C742	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C743	C-E	25V 47M-M	4702470T43		
1		C744	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C745	C-E	25V 47M-M	4702470T43		
1		C746	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C748	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C749	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C750	C-E	25V 47M-M	4702470T43		
1		C751	C-E	25V 47M-M	4702470T43		
1		C752	C-E-NP	25V 10M-M	4722100E43		
1		C753	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C754	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C755	C-E-NP	25V 10M-M	4722100E43		
1		C756	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C757	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C758	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C759	C-E	25V 47M-M	4702470T43		
1		C760	C-E	25V 47M-M	4702470T43		
1		C761	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C762	C-E-NP	25V 10M-M	4722100E43		
1		C763	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C764	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C765	C-E-NP	25V 10M-M	4722100E43		
1		C766	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C767	C-E	25V 47M-M	4702470T43		
1		C768	C-E	25V 47M-M	4702470T43		
1		C769	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C770	C-E-NP	25V 10M-M	4722100E43		
1		C771	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C772	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C773	C-E-NP	25V 10M-M	4722100E43		
1		C774	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		C775	C-E	25V 220M-M	4702221T43		
1		C776	C-E	25V 220M-M	4702221T43		
1		C777	C-C-CHIP	50V CH-150P-J	4102151B14		
1		C778	C-C-CHIP	50V CH-150P-J	4102151B14		
1		C779	C-C-CHIP	25V F-R1M-Z	4112104B44		
1		D701	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D703	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D704	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D705	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D706	D-CHIP	HSM2836C/DAN202K	7422004A14		
1		D708	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D709	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D710	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D711	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D712	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D713	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		D714	D-CHIP	HSM123/DAN217/1/PS226	7422017A24		
1		IC701	IC	NR2363P	7412037A10		
1		IC702	IC-CHIP	UPD61862	7412423A19		
1		IC703	IC	20M33	7412537A15		
1		IC704	IC-CHIP	78M05	7412513A14		
1		IC705	IC	LA8510/TAB410AK	7412217A20		
1		IC706	IC	LA8510/TAB410AK	7412217A20		
1		IC707	IC	LA8510/TAB410AK	7412217A20		
1		IC708	IC	STK301-110	7412425A10		
1		L701	SO-COPPER-WIRE		9902001A11		
1		L702	SO-COPPER-WIRE		9902001A11		
1		Q701	TR-CHIP	BT1815/2SC2412/KTC3075/2PD001	7402151A34		
1		Q702	TR-CHIP	BT1815/2SC2412/KTC3075/2PD001	7402151A34		
1		Q704	TR-CHIP	BT1815/2SC2412/KTC3075/2PD001	7402151A34		

DWG. TITLE : ASSY-PWB-CORRECTION

QTY	REV	REF NO	PART	DESCRIPTION	PART NO	PRICE	REMARK
1		Q705	TR-CHIP	BT1015/25C2412/KTC3875/2PD601	7402151A34		
1		Q706	TR-CHIP	BT1015/25C2412/KTC3875/2PD601	7402151A34		
1		Q707	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	7402001A34		
1		R701	R-C	1/4W 10K-J	6132103C11		
1		R702	R-C	1/4W 10K-J	6132103C11		
1		R703	R-M-CHIP	1/10W 3K-J	6132302C24		
1		R704	R-M-CHIP	1/10W 2R7K-J	6132272C24		
1		R705	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R706	R-M-CHIP	1/10W 2R2K-J	6132222C24		
1		R707	R-M-CHIP	1/10W 2R2K-J	6132222C24		
1		R708	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R713	R-M-CHIP	1/10W 33-J	6132330C24		
1		R714	R-M-CHIP	1/10W 33-J	6132330C24		
1		R715	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R717	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R718	R-M-CHIP	1/10W 3R9K-J	6132362C24		
1		R719	R-M-CHIP	1/10W 2R7K-J	6132272C24		
1		R721	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R722	R-M-CHIP	1/10W 150-J	6132151C24		
1		R723	R-M-CHIP	1/10W 750-J	6132751C24		
1		R724	R-M-CHIP	1/10W 750-J	6132751C24		
1		R725	R-M-CHIP	1/10W 680-J	6132681C24		
1		R726	R-M-CHIP	1/10W 150-J	6132151C24		
1		R727	R-M-CHIP	1/10W 820-J	6132821C24		
1		R728	R-M-CHIP	1/10W 3R3K-J	6132332C24		
1		R729	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R730	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R731	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R732	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R733	R-MB	3W 47-J	6122470C47		
1		R734	SO-COPPER-WIRE		9802001A11		
1		R735	R-MB	3W 27-J	6122270C47		
1		R736	R-MB	3W 33-J	6122330C47		
1		R737	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R740	R-M-CHIP	1/10W 33-J	6132330C24		
1		R741	R-M-CHIP	1/10W 33-J	6132330C24		
1		R742	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R743	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R744	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R745	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R746	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R747	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R748	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R749	R-M-CHIP	1/10W 1K-J	6132102C24		
1		R751	R-M-CHIP	1/10W 22K-F	6132223C54		
1		R752	R-M-CHIP	1/10W 22K-F	6132223C54		
1		R753	R-M-CHIP	1/10W 5R6K-F	6132562C54		
1		R754	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R755	R-C	1/4W 5R6-J	6132560C11		
1		R756	R-M-CHIP	1/10W 22K-J	6132223C24		
1		R757	R-MB	1W 68-J	6122680C27		
1		R758	R-M-CHIP	1/10W 2R2-J	6132222C24		
1		R759	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R760	R-C	1/4W 5R6-J	6132560C11		
1		R761	R-M-CHIP	1/10W 22K-J	6132223C24		
1		R762	R-MB	1W 82-J	6122820C27		
1		R763	R-M-CHIP	1/10W 2R2-J	6132222C24		
1		R764	R-M-CHIP	1/10W 36K-F	6132363C54		
1		R765	R-M-CHIP	1/10W 36K-F	6132363C54		
1		R766	R-M-CHIP	1/10W 5R6K-F	6132562C54		
1		R768	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R769	R-C	1/4W 5R6-J	6132560C11		
1		R770	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R771	R-MB	1W 22-J	6122220C27		
1		R772	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R773	R-C	1/4W 5R6-J	6132560C11		
1		R774	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R775	R-MB	1W 22-J	6122220C27		
1		R776	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R777	R-C	1/4W 5R6-J	6132560C11		
1		R778	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R779	R-MB	1W 22-J	6122220C27		
1		R780	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R781	R-C	1/4W 5R6-J	6132560C11		
1		R782	R-M-CHIP	1/10W 10K-J	6132103C24		
1		R783	R-MB	1W 22-J	6122220C27		
1		R784	R-M-CHIP	1/10W 6R8K-J	6132682C24		
1		R785	R-M-CHIP	1/10W 1R5K-J	6132152C24		
1		R786	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R787	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R788	R-M-CHIP	1/10W 3R3K-J	6132332C24		
1		R789	R-MB	1W 270-J	6122710C27		
1		R790	R-MB	2W 3R3-J	6122330C37		
1		R791	R-M-CHIP	1/10W 6R8K-J	6132682C24		
1		R792	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R793	R-M-CHIP	1/10W 1R5K-J	6132152C24		
1		R794	R-M-CHIP	1/10W 4R7K-J	6132472C24		
1		R795	R-M-CHIP	1/10W 3R3K-J	6132332C24		
1		R796	R-MB	1W 270-J	6122710C27		
1		R797	R-MB	2W 3R3-J	6122330C37		
1		R799	R-M-CHIP	1/10W 12K-F	6132123C54		
1		RTA1	R-M-CHIP	1/10W 5R6K-F	6132562C54		
1			RADIATOR	60*28*5*15	7902032A10		
1		CLB	CONNECTOR	A2501WV2-4P	4522029C10		!
1		CLT	CONNECTOR	A2501WV2-5P	4522029C10		!
1		DC	CONNECTOR	A2501WV2-6P	4522029C10		!
1		H	CONNECTOR	A2501WR2-6P	4522048C10		!
1		J	CONNECTOR	A2501WR2-3P	4522048B10		!
1		NS	CONNECTOR	A2501WV2-3P	4522029B10		!
1		TILT	CONNECTOR	A2501WV2-2P	4522028A10		!
1/2			PWB-CORRECTION		210R100-01		!

DWG. TITLE : ASSY-PWB-MAIN

QTY	REV.	REF. NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		12	RADIATOR-M		5908152-02		
1		13	RADIATOR		590V115-01		
2		14	RADIATOR		590V097-03		
1		15	SHIELD-IC		590T090-01		
1		16	RADIATOR	30*108*40	790Z031A10		
1		17	SHIELD-IC-C		590V109-01		
20		22	SCREW	MP-SEMS-W3*10MC-S	630Z401B10		
1		23	SCREW	BTU-SEMS-W3*8MC-S	631Z421B08		
1		25	LEAD-CONNECTOR		246T096-03		!
1		26	LEAD-CONNECTOR		246T096-06		!
1		27	LEAD-CONNECTOR		246T096-07		!
1		28	LEAD-CONNECTOR		246T096-08		!
1		29	LEAD-CONNECTOR		246T096-09		!
1		30	LEAD-CONNECTOR		246T096-10		!
1		31	LEAD-WIRE		246Z001-01		
1		35	COOL-SHEET		222V024-01		!
1		36	COOL-SHEET		222V025-01		!
2		37	COOL-SHEET	M-20/TC-20AG	222Z001A01		!
1		38	COOL-SHEET	M-20	222Z001A02		!
1		40	CLAMPER	STL-250-B-01	540Z037A03		!
3		41	CLAMPER	STL-450-12-01	540Z037A13		!
1		42	CLAMPER	STL-450-20-01	540Z037A15		!
2		43	CABLE-TIES	GT-100M/SL-100-M/YJ-100	540Z089A01		!
1		44	SPACER	TCBS-8/STBS-8	540Z042A01		
1		45	CLAMPER	SHK-12	540Z080A01		!
1		47	FERRITE-CORE	BP53RB/FSOB162RNE1620MRT/W5T	755Z902E10		
1		51	LEAD-CONNECTOR		246T096-11		!
1		52	LEAD-CONNECTOR		246T096-15		!
1		53	LEAD-CONNECTOR		246T096-14		!
2		54	LEAD-CONNECTOR		246T096-13		!
#		56	UL-TUBE	AWG-4 L=25mm	833Z001A03		!
#		57	UL-TUBE	AWG-9 L=23mm	833Z001A02		!
1		C301	C-E	25V 220M-M	470Z221T43		
1		C302	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C303	C-E	25V 220M-M	460Z221B43		
1		C304	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C306	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C307	C-E	25V 100M-M	460Z101B43		
1		C308	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C309	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C310	C-E	25V 100M-M	460Z101B43		
1		C311	C-E	50V 4R7M-M	460Z479B63		
1		C312	C-C-CHIP	50V CH-27P-J	410Z270B14		
1		C313	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C314	C-E	25V 47M-M	460Z470B43		
1		C315	C-E	25V 100M-M	460Z101B43		
1		C316	C-E	16V 470M-M	460Z471B33		
1		C319	C-C-CHIP	50V B-1000P-K	411Z102B14		
1		C320	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C321	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C322	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C323	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C325	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C326	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C327	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C328	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C329	C-E	25V 100M-M	460Z101B43		
1		C330	C-E	25V 100M-M	460Z101B43		
1		C350	C-E	16V 470M-M	470Z471T33		
1		C351	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C354	C-E	100V 2R2M-M	470Z229T83		
1		C355	C-E	100V 1M-M	470Z109T83		
1		C356	C-C-CHIP	50V B-1000P-K	411Z102B14		
1		C357	C-E	100V 1M-M	470Z109T83		
1		C358	C-E	25V 33M-M	470Z330T43		
1		C359	C-C-CHIP	50V B-R033M-K	411Z333B14		
1		C360	C-E	16V 1000M-M	470Z102G33		
1		C361	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C362	C-E	25V 220M-M	470Z221T43		
1		C363	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C364	C-C-CHIP	50V B-R033M-K	411Z333B14		
1		C366	C-C	50V SL-390P-J	410Z391A73		
1		C367	C-C-CHIP	50V CH-2200P-J	410Z222C14		
1		C368	C-E	25V 47M-M	470Z470T43		
1		C369	C-C-CHIP	50V CH-1000P-J	410Z102B14		
1		C370	C-C-CHIP	50V CH-1000P-J	410Z102B14		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF. NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		C372	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C373	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C374	C-E	50V 10M-M	470Z100T63		
1		C375	C-E	50V 10M-M	470Z100T63		
1		C377	C-E	25V 100M-M	470Z101T43		
1		C378	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C379	C-C-CHIP	50V B-1000P-K	411Z102B14		
1		C380	C-E	25V 100M-M	470Z101T43		
1		C382	C-E	50V 10M-M	470Z100T63		
1		C384	C-E	25V 100M-M	470Z101T43		
1		C385	C-E	25V 100M-M	460Z101B43		
1		C390	C-E	25V 100M-M	460Z101B43		
1		C391	C-E	25V 100M-M	460Z101B43		
1		C392	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C393	C-E	25V 100M-M	460Z101B43		
1		C394	C-E	25V 100M-M	460Z101B43		
1		C395	C-E	25V 100M-M	460Z101B43		
1		C396	C-E	25V 100M-M	460Z101B43		
1		C397	C-E	25V 100M-M	460Z101B43		
1		C398	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C401	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C402	C-E	25V 100M-M	470Z102G47		
1		C403	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C404	C-E	25V 100M-M	470Z101T43		
1		C405	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C406	C-E	25V 100M-M	470Z102G47		
1		C407	C-MF	100V R22M-J	420Z224E23		
1		C408	C-E	35V 100M-M	470Z101T53		
1		C410	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C413	C-C-CHIP	50V B-4700P-K	411Z472B14		
1		C501	C-PP	2000V 1800P-H	424Z182A67		
1		C502	C-PP	2000V 1800P-H	424Z182A67		
1		C504	C-PP	250V 2R2M-J/K	425Z225C17		
1		C505	C-C	2KV B-1500P-K	413Z152B46		
1		C507	C-C-CHIP	50V B-4700P-K	411Z472B14		
1		C508	C-PP	63/100V 10M-K/M	425Z106B37		
1		C509	C-C	500V B-680P-K	411Z681B33		
1		C510	C-PP	250V 1R6M-J	422Z165C47		
1		C511	C-PP	250V R68M-J	422Z684A47		
1		C512	C-PP	250V R27M-J	422Z274C47		
1		C513	C-PP	250V R12M-J	422Z124C47		
1		C514	C-PP	250V R1M-J	422Z104C47		
1		C515	C-PP	400V R075M-H	422Z753A37		
1		C516	C-PP	400V R082M-H	422Z823A37		
1		C518	C-MF	100V R47M-J	420Z474E23		
1		C519	C-E	100V 1M-M	470Z109T83		
1		C520	C-MF	50/100V R15M-J	420Z154A83		
1		C521	C-E-NP	25V 10M-M	472Z100E43		
1		C522	C-C	500V B-470P-K	411Z471B33		
1		C523	C-E	450V 1M-M	461Z109B63		
1		C524	C-PP	1000/1250V2200P-J	423Z222C57		I
1		C525	C-E	100V 330M-M	470Z331R87		
1		C526	C-C	500V SL-120P-J	410Z121B43		
1		C527	C-PP	1000/1250V8200P-J	423Z822B57		
1		C528	C-E	25V 100M-M	460Z102B47		
1		C529	C-E	100V 1M-M	460Z109B83		
1		C531	C-E	50V R1M-M	460Z108H63		
1		C532	C-E-NP	50V 10M-M	462Z100B63		
1		C533	C-PP	250V R1M-J	422Z104C47		
1		C534	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C537	C-C	500V B-1000P-K	411Z102B33		
1		C539	C-E	50V 10M-M	470Z100T63		
1		C541	C-E	25V 47M-M	460Z470B43		
1		C542	C-E	160V 10M-M	470Z100G93		
1		C543	C-E	25V 100M-M	470Z101T43		
1		C544	C-PP	100V 2R2M-J/K	425Z225B07		
1		C551	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C552	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C553	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C554	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C555	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C556	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C557	C-PP	250V R082M-J	422Z823C47		
1		C559	C-E	25V 220M-M	470Z221T43		
1		C560	C-E	50V 22M-M	460Z220B63		
1		C563	C-E	100V 2R2M-M	470Z229T83		I
1		C564	C-E	100V 2R2M-M	470Z229T83		I
1		C565	C-MF	50V R47M-J	420Z474A13		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		C566	C-C	500V E-R01M-P/Z	411Z103A07		
1		C950	C-PP	630V 1M-K	425Z105C27		
1		C951	C-E	25V 100M-M	470Z101T43		
1		C952	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C953	C-MF	50V R68M-J	420Z68A13		
1		C954	C-C-CHIP	50V CH-680P-J	410Z681B14		
1		C955	C-MF	50/100V 1000P-J	420Z102B83		
1		C956	C-E	450V 220M-M	477Z006A10		I
1		C957	C-PP	630V R047M-K	425Z473C27		
1		C958	C-C	2KV SL-47P-J	414Z470A28		
1		C959	C-C	2KV B-220P-K	413Z221B43		
1		C960	C-E	35V 220M-M	470Z221G53		
1		C961	C-E	50V 10M-M	470Z100T63		
1		C962	C-C-CHIP	50V CH-560P-J	410Z561B14		
1		C963	C-C-CHIP	50V CH-2200P-J	410Z222C14		
1		C964	C-MF	50/100V R047M-J	420Z473B83		
1		C965	C-E	50V 22M-M	470Z220T63		
1		C966	C-MF	50/100V R22M-J	420Z224A83		
1		C967	C-MF	50/100V R01M-J	420Z103B83		
1		C968	C-MF	50/100V R01M-J	420Z103B83		
1		C969	C-C	AC250V 2200P-M	510Z012A16		I
1		C970	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C971	C-C	2KV B-220P-K	413Z221B43		
1		C972	C-E	100V 330M-M	470Z331R87		
1		C973	C-C	500V E-R01M-P/Z	411Z103A07		
1		C974	C-E	100V 220M-M	470Z221R87		
1		C975	C-C	2KV B-220P-K	413Z221B43		
1		C976	C-E	35V 1800M-M	470Z182S57		
1		C977	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C978	C-E	35V 680M-M	470Z681S57		
1		C979	C-C	2KV B-220P-K	413Z221B43		
1		C980	C-E	25V 2700M-M	470Z272S47		
1		C981	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C982	C-E	25V 1500M-M	470Z152S47		
1		C983	C-C	2KV B-220P-K	413Z221B43		
1		C984	C-E	25V 1500M-M	470Z152S47		
1		C985	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C986	C-E	35V 680M-M	470Z681S57		
1		C987	C-C	2KV B-100P-K	413Z101B43		
1		C988	C-C	500V B-330P-K	411Z331B33		
1		C989	C-MF	50/100V 1000P-J	420Z102B83		
1		C991	C-E	25V 220M-M	470Z221T43		
1		C992	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C993	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C994	C-E	25V 100M-M	470Z101T43		
1		C997	C-E	35V 100M-M	470Z101T53		
1		D306	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D307	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D308	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D309	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D401	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D501	D	5VUZ47	742Z063A15		
1		D502	D	RC3B2	742Z032A17		
1		D503	ZD	HZT33-10	742Z408A11		I
1		D504	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D505	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D506	ZD	P6KE82/Z2082U	742Z419A21		
1		D511	D	5VUZ47	742Z063A15		
1		D512	D	RG2/S2L40	742Z021A18		
1		D513	D	1N4148/1SS133/1SS120	742Z001A21		
1		D514	D	1N4148/1SS133/1SS120	742Z001A21		
1		D515	D	HER108/EG01C/UF4007	742Z024A21		
1		D516	D	S3L40/HER305	742Z036A47		
1		D517	D	HER108/EG01C/UF4007	742Z024A21		
1		D518	D	SF34/S3L20U/ERC91-02	742Z035A38		
1		D519	D	SF34/S3L20U/ERC91-02	742Z035A38		
1		D520	D	HER103/UF4003/AL01Z/D1NL20U	742Z009A31		
1		D521	D	HER103/UF4003/AL01Z/D1NL20U	742Z009A31		
1		D522	D	1N4148/1SS133/1SS120	742Z001A21		
1		D523	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D524	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D525	ZD	MTZ-J27A/HZ24-3	742Z415A21		
1		D526	D	1N4148/1SS133/1SS120	742Z001A21		
1		D527	D	EG01/D1NL40	742Z020A11		
1		D528	ZD	MTZ-J10B	742Z411A11		
1		D529	ZD	MTZ-J13C/HZ12B3	742Z417A21		
1		D530	D	5VUZ47	742Z063A15		
1		D531	D	1N4148/1SS133/1SS120	742Z001A21		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		D532	D	D5S4M	742Z048A15		
1		D533	ZD	MTZ-J27A/HZ24-3	742Z415A21		
1		D534	ZD	MTZ-J27A/HZ24-3	742Z415A21		
1		D535	ZD	MTZ-J27A/HZ24-3	742Z415A21		
1		D950	D	RBV-606/D5SBA60	742Z062A16		I
1		D951	D	YG912S6/SF8L60	742Z042A15		
1		D952	ZD	MTZ-J15C/HZ15-2	742Z422A11		
1		D953	D	HER108/EG01C/UF4007	742Z024A21		
1		D954	D	EG01/D1NL40	742Z020A11		
1		D956	D	EG01/D1NL40	742Z020A11		
1		D957	D	1N4148/1SS133/1SS120	742Z001A21		
1		D958	D	RB441Q/1SS165-03/SR104	742Z026A21		
1		D959	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D960	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D961	D	1N4148/1SS133/1SS120	742Z001A21		
1		D962	D	1N4148/1SS133/1SS120	742Z001A21		
1		D963	D	1N4148/1SS133/1SS120	742Z001A21		
1		D964	D	EM01Z/D1N60/1N4003	742Z019A31		
1		D965	D	S3L40	742Z036A15		
1		D966	D	S3L40	742Z036A15		
1		D967	D	FML-G14S	742Z049A15		
1		D968	D	FML-G12S/D4L20U/SF6L20U	742Z011A15		
1		D969	D	FML-G12S/D4L20U/SF6L20U	742Z011A15		
1		D970	D	FML-G14S	742Z049A15		
1		D971	D	HER108/EG01C/UF4007	742Z024A21		
1		D972	D	1N4148/1SS133/1SS120	742Z001A21		
1		D974	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D975	D	1N4148/1SS133/1SS120	742Z001A21		
1		D981	D	HER103/UF4003/AL01Z/D1NL20U	742Z009A31		
1		IC301	IC	TMP86PP11AN	7412625B10		
1		IC302	IC	M51951BSL/KIA7045P	741Z017A33		
1		IC303	IC	24C08	741Z018A20		
1		IC304	IC	MIU-231	741Z706A10		
1			SOCKET-IC	8305-42AT00/CLC3042-0101	448Z012A10		
1		IC350	IC	UPC1888DCT	741Z443A10		
1		IC351	IC	7812	741Z501A85		
1		IC401	IC	LA7840L	741Z414A10		
1		IC501	IC	SLA5070	741Z449A17		
1		IC502	IC	MSPAD383	741Z707A10		
1		IC503	IC	7805	741Z532A25		
1		IC951	IC	MC33260P	741Z450A10		
1		IC952	IC	3842	741Z417A10		
1		IC953	IC	7712/2412	741Z536A15		
1		K501	RELAY	F2AK12T/LKS321/DG12D1/SDT12LMR	781Z010A10		
1		K502	RELAY	F2AK12T/LKS321/DG12D1/SDT12LMR	781Z010A10		
1		K950	RELAY	OSA-SS-212DM5/DG12D2/ALA2PF12	781Z007A10		I
1		L301	COIL-CHOKE	22MH	751Z308A26		
1		L304	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L401	COIL-CHOKE	22MH	751Z308A26		
1		L402	COIL-CHOKE	22MH	751Z308A26		
1		L501	COIL-CHOKE	2100MH	751Z917A10		
1		L502	COIL-CHOKE	470MH	751Z308A46		
1		L503	COIL-H-LIN		754Z008A10		
1		L504	COIL-CHOKE	22MH	751Z618A33		
1		L505	FERRITE-BEADS	FBA03HA450	750Z903A11		
1		L506	FERRITE-BEADS	FBA03HA450	750Z903A11		
1		L507	COIL-H-LIN		754Z006A80		
1		L508	COIL-CHOKE	3R3MH	751Z309A13		
1		L509	COIL-CHOKE	470MH	751Z308A46		
1		L510	COIL-CHOKE	470MH	751Z308A46		
1		L511	SO-COPPER-WIRE		990Z001A11		
1		L512	SO-COPPER-WIRE		990Z001A11		
1		L513	SO-COPPER-WIRE		990Z001A11		
1		L514	COIL-CHOKE	1000MH	751Z308A56		
1		L950	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L951	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L952	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L953	COIL-CHOKE	10MH	750Z301A11		
1		L954	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L955	SO-COPPER-WIRE		990Z001A11		
1		L956	COIL-CHOKE	550MH	751Z905A20		
1		L957	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L958	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L959	COIL-CHOKE	82MH	751Z308A86		
1		L961	SO-COPPER-WIRE		990Z001A11		
1		PR950	PTH	AC270V 4R5	782Z010A10		
1		Q350	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q351	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF. NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		Q352	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		
1		Q353	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q501	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q503	TR	2SC5570	740Z167A15		
1		Q504	TR	2SK2962	740Z467A13		
1		Q505	TR-CHIP	KRC105S/DTC123JKA/RN1405	740Z665A14		
1		Q506	TR-CHIP	KRA103/DTA124/RN2403/PDTA124	740Z661A34		
1		Q507	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q508	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		Q509	TR-CHIP	KRC105S/DTC123JKA/RN1405	740Z665A14		
1		Q516	TR	2SC5248	740Z165A15		
1		Q517	TR	2SA1964	740Z009A15		
1		Q518	TR	BF422/HBF422	740Z163A23		
1		Q519	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		Q520	TR	2SC4620	740Z173A13		
1		Q521	TR	2SK2364/2SK2543/2SK2640-01MR	740Z464A15		
1		Q522	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q523	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		Q524	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		Q525	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		Q526	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		
1		Q527	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q528	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q529	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q530	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q531	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q532	TR-CHIP	RN1401/DTC143EKA/KRC101S	740Z667A24		
1		Q533	TR	2SA821S	740Z003A13		
1		Q950	TR	2SK2837/STW20NC50	740Z471A15		
1		Q951	TR	2SK2968/STW9NB90	740Z470A25		
1		Q952	TR-CHIP	KRC105S/DTC123JKA/RN1405	740Z665A14		
1		Q953	TR	2SK2508/2SK2341	740Z451A25		
1		Q954	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q955	TR-CHIP	BT1015/2SA1037/KTA1504/2PB709	740Z001A34		
1		R301	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R302	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R303	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R304	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R305	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R306	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R307	R-C	1/4W 100-J	613Z101C11		
1		R308	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R309	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R310	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R311	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R312	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R313	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R314	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R316	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R317	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R318	R-MB	1/4W 20K-F	615Z203B11		
1		R319	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R320	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R321	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R322	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R324	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R325	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R326	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R329	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R330	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R331	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R332	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R333	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R335	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R336	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R339	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R340	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R350	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R351	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R352	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R353	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R354	R-M-CHIP	1/10W 1R5K-J	613Z152C24		
1		R355	R-M-CHIP	1/10W 47K-F	613Z473C54		
1		R356	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R357	R-M-CHIP	1/10W 20K-J	613Z203C24		
1		R358	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R359	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R360	R-C	1/4W 4R7K-J	613Z472C11		

DWG. TITLE : ASSY-PWB-MAIN

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		R361	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R362	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R363	R-M-CHIP	1/10W 20K-F	613Z203C54		
1		R364	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R365	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R366	R-C	1/4W 1K-J	613Z102C11		
1		R367	R-M-CHIP	1/10W 20K-J	613Z203C24		
1		R368	R-M-CHIP	1/10W 3R3K-J	613Z332C24		
1		R371	R-M-CHIP	1/10W 2R2K-J	613Z222C24		
1		R374	R-M-CHIP	1/10W 1R5K-F	613Z152C54		
1		R375	R-MB	1/4W 33K-F	615Z333B11		
1		R376	R-M-CHIP	1/10W 470K-F	613Z474C54		
1		R377	R-MB	1/4W 560K-F	615Z564B11		
1		R383	R-M-CHIP	1/10W 10K-F	613Z103C54		
1		R385	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R389	R-M-CHIP	1/10W 12K-F	613Z123C54		
1		R390	R-C	1/4W 33K-J	613Z333C11		
1		R391	SO-COPPER-WIRE		990Z001A11		
1		R392	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R393	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R394	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R397	R-M-CHIP	1/10W 13K-F	613Z133C54		
1		R401	R-MB	1W 1-J	612Z109C27		
1		R402	R-C	1/2W 330-J	613Z331D81		
1		R403	R-M-CHIP	1/10W 18K-F	613Z183C54		
1		R404	R-M-CHIP	1/10W 51K-F	613Z513C54		
1		R405	R-M-CHIP	1/10W 10K-F	613Z103C54		
1		R406	R-FUSE	1/4W 1R5-J	614Z159A81		
1		R407	R-M-CHIP	1/10W 4R7K-F	613Z472C54		
1		R409	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R410	R-MB	1/4W 10K-F	615Z103B11		
1		R411	R-M-CHIP	1/10W 12K-F	613Z123C54		
1		R412	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R501	R-C	1/4W 47K-J	613Z473C11		
1		R505	R-FUSE	1/4W 10-J	614Z100A61		
1		R506	R-MB	1/2W 22-J	612Z220A17		
1		R507	R-MB	2W 220-J	612Z221C37		
1		R508	R-C	1/2W 15-J	613Z150D81		
1		R509	R-CE	5W R82-K	616Z828A56		
1		R510	R-MB	2W R12-J	612Z128D37		
1		R511	R-C	1/2W 15-J	613Z150D81		
1		R512	R-CE	5W 75-J	616Z750C16		
1		R513	R-FUSE	1/4W 10-J	614Z100A61		
1		R514	R-MB	3W 180-J	612Z181C47		
1		R515	R-C	1/4W 1K-J	613Z102C11		
1		R519	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R520	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R521	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R523	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R524	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R526	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R527	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R529	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R530	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R531	R-C	1/4W 150K-J	613Z154C11		
1		R532	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R533	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R534	R-C	1/4W 150K-J	613Z154C11		
1		R535	R-M-CHIP	1/10W 150-J	613Z151C24		
1		R536	SO-COPPER-WIRE		990Z001A11		
1		R537	R-C	1/4W 15K-J	613Z153C11		
1		R538	R-C	1/4W 10-J	613Z100B11		
1		R539	R-C	1/4W 10-J	613Z100B11		
1		R540	R-C	1/4W 47-J	613Z470C11		
1		R541	R-C	1/4W 39K-J	613Z393C11		
1		R542	R-C	1/4W 1R8K-J	613Z182C11		
1		R543	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R544	R-C	1/4W 1K-J	613Z102C11		
1		R545	R-FUSE	1/4W 10-J	614Z100A61		
1		R546	R-C	1/4W 470K-J	613Z474C11		
1		R547	R-C	1/4W 3R3M-J	613Z335F11		
1		R548	R-M-CHIP	1/10W 22K-J	613Z223C24		
1		R549	R-C	1/4W 1R2K-J	613Z122C11		
1		R550	R-M-CHIP	1/10W 47K-J	613Z473C24		
1		R551	R-C	1/2W 1K-J	613Z102D81		
1		R552	R-C	1/4W 47-J	613Z470C11		
1		R553	R-MB	2W R12-J	612Z128D37		
1		R554	R-CE	7W 18-J	616Z180A67		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		R555	R-C	1/4W 82K-J	613Z282C11		
1		R556	R-CE	5W 68-J	616Z680C17		
1		R557	R-M-CHIP	1/10W 8R2K-F	613Z822C54		!
1		R558	R-M-CHIP	1/10W 27K-F	613Z273C54		!
1		R559	R-FUSE	1/4W R22-K	614Z228B11		
1		R560	R-C	1/4W 100-J	613Z101C11		
1		R561	R-FUSE	1/4W 2R2-J	614Z229A61		
1		R562	R-FUSE	1/4W 10-J	614Z100A61		
1		R563	R-C	1/4W 33-J	613Z330C11		
1		R564	R-C	1/4W 4R7K-J	613Z472C11		
1		R565	R-C	1/4W 1K-J	613Z102C11		
1		R566	R-C	1/4W 820-J	613Z821C11		
1		R567	R-M-CHIP	1/10W 22K-J	613Z223C24		
1		R568	R-C	1/4W 5R6K-J	613Z562C11		
1		R569	R-M-CHIP	1/10W 47K-J	613Z473C24		
1		R571	R-M-CHIP	1/10W 240K-F	613Z244C54		!
1		R572	R-M-CHIP	1/10W 120K-F	613Z124C54		!
1		R573	R-C	1/4W 68K-J	613Z683C11		
1		R574	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R575	R-M-CHIP	1/10W 100K-J	613Z104C24		
1		R576	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R577	R-M-CHIP	1/10W 2R2K-J	613Z222C24		
1		R578	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R579	R	1/2W 56K-J	619Z563A71		
1		R580	R-M-CHIP	1/10W 220-J	613Z221C24		
1		R581	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R582	R-C	1/4W 150K-J	613Z154C11		
1		R583	R-C	1/4W 150K-J	613Z154C11		
1		R584	R-C	1/4W 150K-J	613Z154C11		
1		R585	R-C	1/4W 150K-J	613Z154C11		
1		R586	R-C	1/4W 15K-J	613Z153C11		
1		R587	R-FUSE	1W 82-J	614Z820A38		
1		R588	R-M-CHIP	1/10W 2K-J	613Z202C24		
1		R589	R-M-CHIP	1/10W 2K-J	613Z202C24		
1		R951	R-MB	3W R33-J	612Z338C47		
1		R952	SO-COPPER-WIRE		990Z001A11		
1		R953	R-FUSE	1/4W 2R2-J	614Z229A61		
1		R954	R	1/2W 1M-J	619Z105A71		
1		R955	R	1/2W 1M-J	619Z105A71		
1		R956	SO-COPPER-WIRE		990Z001A11		
1		R957	R-CE	5W 39K-J	616Z393C17		
1		R958	R-MB	2W 120K-J	612Z124G37		
1		R959	R-MB	2W 100K-J	612Z104C37		
1		R960	R-MB	2W 12-J	612Z120C37		
1		R961	R-FUSE	1/4W R22-K	614Z228B11		
1		R963	R-FUSE	1/4W 10-J	614Z100A61		
1		R964	R-FUSE	1/2W 100-J	614Z101A71		
1		R965	R-FUSE	1/4W 10K-J	614Z103A61		
1		R966	R-FUSE	1/4W 1K-J	614Z102A61		
1		R967	R-MB	2W R33-J	612Z338C37		
1		R968	R-MB	2W 1K-J	612Z102C37		
1		R969	R-M-CHIP	1/10W 13K-J	613Z133C24		
1		R970	R-M-CHIP	1/10W 1R3K-J	613Z132C24		
1		R971	R-M-CHIP	1/10W 33K-J	613Z333C24		
1		R972	R-M-CHIP	1/10W 1M-J	613Z105C24		
1		R973	R-C	1/4W 15K-J	613Z153C11		
1		R974	R-C	1/4W 43-J	613Z430C11		
1		R975	R-C	1/4W 47-J	613Z470C11		
1		R976	FUSE	471005/20T5000	283Z222A21		
1		R977	R-FUSE	1/4W 15-J	614Z150A61		
1		R978	FUSE	471004/20T4000	283Z222A11		
1		R979	R-FUSE	1/4W 15-J	614Z150A61		
1		R980	R-FUSE	1/4W 15-J	614Z150A61		
1		R981	FUSE	251007/20N7000	283Z221A31		
1		R982	R-FUSE	1/4W 15-J	614Z150A61		
1		R983	FUSE	471005/20T5000	283Z222A21		
1		R984	R-MB	2W 680-J	612Z681C37		
1		R985	R-MB	2W R22-J	612Z228C37		
1		R986	R-C	1/4W 1K-J	613Z102C11		
1		R987	R-C	1/4W 1K-J	613Z102C11		
1		R988	R-FUSE	1/2W 100-J	614Z101A71		
1		R989	R-C	1/4W 10K-J	613Z103C11		
1		R990	R-M-CHIP	1/10W 8R2K-J	613Z822C24		
1		R994	R-C	1/4W 150K-J	613Z154C11		
1		R995	R-C	1/4W 4R7K-J	613Z472C11		
1		R996	R	1/2W 4R7M-J	619Z475A71		
1		R997	R	1/2W 4R7M-J	619Z475A71		
1		R998	R-C	1/4W 10-J	613Z100C11		

DWG. TITLE : ASSY-PWB-MAIN

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		R9A3	R-FUSE	1/4W 10K-J	614Z103A81		
1		R9A4	R-MB	2W R33-J	612Z338C37		
1		R9A5	R-M-CHIP	1/10W 39K-J	613Z393C24		
1		R9A6	R-MB	2W 56K-J	612Z563C37		
1		R9A7	R-MB	2W 56K-J	612Z563C37		
1		R9A8	R-C	1/4W 100-J	613Z101C11		
1		S501	SW	SK-23D07-V4	129Z034A10		
1		SG501	NEON-LAMP	DSP-152M/YP-152N	789Z014A31		
1		T501	FBT		759Z011A10		I
1		T502	HDT		757Z001A20		
1		T503	SWT		756Z007A10		
1		T950	SWT		756Z025A10		
1		T951	SWT		756Z024A10		I
1		TH950	THERMISTOR	10	744Z001A28		I
1		VR501	VR	B-100K	620Z104A83		
1		VR502	VR	B-100K	620Z104A50		
1		VR503	VR	B-10K	620Z103A83		I
1		VR951	VR	B-500	620Z501A60		
1		X301	X'TAL	12MHZ	780Z011A16		
1		AD	CONNECTOR	A3963WV2-5P-2.4NC	452Z052B10		I
1		B	CONNECTOR	A2501WV2-10P	452Z029J10		I
1		CT	CONNECTOR	A2501WV2-2P	452Z029A10		I
1		DG	CONNECTOR	A3963WV2-3P-2NC	452Z052A10		I
1		H-DY	CONNECTOR	A3963WV2-6P	452Z030E10		I
1		MF	CONNECTOR	A2501WV2-2P	452Z029A10		I
1		RS	CONNECTOR	A2501WV2-5P	452Z029D10		I
1		TP	CONNECTOR	A2501WR2-4P	452Z048C10		I
1		V-DY	CONNECTOR	A3963WV2-3P-2NC	452Z052A10		I
2		TH	GT-PIN	DIA2.36	452Z902A10		
32			EYELET		679D022A20		
1			RADIATOR	UOT-10CS25-MP	790Z001A10		
3			RADIATOR	OSH-2425/PR1724/790Z006-10	790Z006A10		
1			RADIATOR	OSH-2054-L80-MP/2054-680-MP	790Z025A20		
2			RADIATOR	23*26.5*1.2	790Z028A10		
1			RADIATOR	23.4*75*17	790Z030A10		
1			RADIATOR	43.5*75*17	790Z034A10		
1			PWB-MAIN		210R098-01		I

DWG. TITLE : ASSY-MONITOR

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		24	FRONT-CABINET		700R090-21		!
1		28	BACK-COVER		700R086-23		!
1		31	STAND-SUPPORT		770R034-21		!
1		34	STAND-BASE		770R029-22		!
1		36	CAP-SCREW-L		700T028-01		
1		37	CAP-SCREW-R		700T028-02		
2		39	HOLDER-SP		700T028-02		
1		40	STOP-RING		770T022-02		
1		41	CHIP-LED		703T007-01		
1		42	BUTTON-PUSH		704S003-02		
1		44	RING		700T024-01		
1		47	BASE-PLATE		590R154-03		
1		48	TOP-PLATE		590R168-01		
1		49	SIDE-PLATE-L		590R169-01		
1		50	SIDE-PLATE-R		590R169-02		
1		51	BOTTOM-PLATE		590R167-03		
1		52	SHIELD-COVER-A		590R170-01		
1		53	SHIELD-COVER-B		590R171-01		
1		54	SHIELD-COVER-C		590R172-01		
1		55	SHIELD-MAIN		590R173-01		
1		56	HOLDER-CONT		590T092-01		
1		57	COVER-PLATE		590V114-01		
1		61	COIL-DEGAUSSING		409Z061-01		!
1		62	COIL-CANCEL		409Z082-01		!
1		63	COIL-CANCEL		409Z063-01		!
1		64	COIL-CANCEL		409Z083-02		!
1		66	CRT	M51LRY32X61	251Z064A04		!
1		68	AC-INLET		454Z012-01		!
1		70	LEAD-CONNECTOR		246T096-01		!
1		71	LEAD-CONNECTOR		246T096-02		!
1		72	LEAD-CONNECTOR		246T096-04		!
1		73	LEAD-CONNECTOR		246T096-05		!
1		74	LEAD-CONNECTOR		246T090-11		!
1		75	LEAD-CONNECTOR		246T090-12		!
1		76	LEAD-CONNECTOR		246Z018-01		!
1		77	EARTH-WIRE		246V026-01		
2		80	SCREW	STV-SEMS-A3*6MC-S	632Z221B06		
4		81	SCREW	STV-SEMS-W3*6MC-S	632Z2421B08		
15		82	SCREW	STV3*6MC-S	632Z121B06		
11		83	SCREW	BTV3*6MC-S	631Z121B08		
7		84	SCREW	BTV-SEMS-W3*10MC-S	631Z421B10		
3		85	SCREW	BTV-SEMS-W3*14MC-S	631Z421B14		
10		86	SCREW	BTV4*10MC-S	631Z121C10		
6		87	SCREW	BTV4*16MC-S	631Z121C16		
2		88	SCREW	BT F3*8AB-S	631Z113B08		
1		89	SCREW	MHA-SEMS-B4*8GR-S	630Z344C08		
4		90	SCREW	P7HA-SEMS5*20MC-S	663Z003D20		
4		91	SCREW	82007-0300/EHDE-JACKPOST4-40	666Z003A01		
1		92	SCREW	MB-SEMS-W3*8MC-S	630Z2431B08		
11		94	CABLE-TIES	GT-100M/TSL-100-M/YJ-100	540Z089A01		!
2		95	CLAMPER	SHK-12	540Z080A01		!
1		96	CLAMPER	SHK-6	540Z080A02		!
39		97	CLAMPER	DGC-6.5-19	540Z093A02		!
1		98	CLAMPER	RLWS-2T	540Z105A01		!
1		99	CLAMPER	RLMC-05T	540Z105A02		!
4		101	SPACER	KGLS-4S/LCBS-4-01	540Z088A01		
5		103	GUM-PAD		683V020-06		
2		104	GUM-PAD		683V017-01		
4		105	WASHER		683V016-03		
5		106	PAD		765V003-01		
1		108	INSULATION-SHEET		223T005-01		!
1		109	INSULATION-SHEET		223T006-01		!
5		111	RIVET	PAD30M3HR-CC	675Z002A01		
#		113	HOLDING-TAPE	NO.29 L=90mm	630Z004A01		
1		115	THERMISTOR	103JT-025-00057	744Z006A10		
2		116	SPEAKER	NP-226/C057PA504-16/S57C16C-3	683Z011A01		
1		118	SHIELD-FINGER	T10669	590Z033A01		
1		119	SHIELD-FINGER	T10690	590Z034A01		
9		120	SHIELD-FINGER	T10676	590Z028A01		
#		121	ACETATE-TAPE	NO.570F/AC04 L=80mm	630Z014A01		
#		124	ACETATE-TAPE	NO.570F/AC04 L=50mm	630Z014A01		
1		125	SPOILER	C	690Z003A03		
1/10		126	SPOILER	E	690Z003A05		
4		130	FERRITE-CORE	KRCBC13/ZCAT1518/E1314MRC	755Z802E02		!
1		131	FERRITE-CORE	KRCBC16/ZCAT2032/E1630MRF	755Z803J20		!
1		135	CLAMPER	STL-250-8-01	540Z037A03		!
1		136	CLAMPER	#3T02/IR-4151-10	540Z077A02		!

DWG. TITLE : ASSY-MONITOR

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		139	LEAD-CONNECTOR		246T096-16		!
1		140	LEAD-CONNECTOR		246T096-17		!
1		141	LEAD-CONNECTOR		246T096-18		!
1		142	LEAD-CONNECTOR		246T096-19		!
1		143	LEAD-CONNECTOR		246T096-21		!
2		144	LEAD-CONNECTOR		246T096-22		!
1		147	LABEL		851V163-01		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		11	RADIATOR-B		580S148-01		
1		12	SHIELD-PLATE		580V110-01		
1		13	SHIELD-VIDEO-A		590S147-01		
1		14	SHIELD-USB		590T091-01		
6		17	SCREW	MP-SEMS-W3*10MC-S	630Z401B10		
3		18	SCREW	BTV3*8MC-S	631Z121B08		
1		21	HOLDER-NECK		540T001-02		!
1		22	LEAD-CONNECTOR		246T096-20		!
1		23	LEAD-WIRE		246Z001-01		!
1		24	LEAD-CONNECTOR		246T090-04		!
1		25	LEAD-CONNECTOR		246T096-11		!
1		26	LEAD-CONNECTOR		246T096-12		!
1		27	CLAMPER	STL-450-12-01	540Z037A13		!
1		28	CLAMPER	STL-450-20-01	540Z037A15		!
1		29	CLAMPER	WS-A-1-01	540Z108A01		!
2		30	SPACER	TCBS-4-01	540Z042A03		
1		C101	C-E	25V 100M-M	460Z101B43		
1		C102	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C103	C-E	25V 100M-M	460Z101B43		
1		C104	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C105	C-E	100V 1M-M	460Z109B83		
1		C106	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C107	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C108	C-E	25V 100M-M	460Z101B43		
1		C109	C-C-CHIP	50V CH-560P-J	410Z561B14		
1		C110	C-C-CHIP	50V CH-560P-J	410Z561B14		
1		C111	C-C-CHIP	50V CH-560P-J	410Z561B14		
1		C112	C-C-CHIP	50V CH-560P-J	410Z561B14		
1		C113	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C114	C-C-CHIP	50V CH-100P-J	410Z101B14		
1		C115	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C116	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C117	C-E	25V 100M-M	460Z101B43		
1		C118	C-E	25V 100M-M	460Z101B43		
1		C119	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C120	C-E	25V 100M-M	460Z101B43		
1		C121	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C122	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C123	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C127	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C128	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C129	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C130	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C131	C-E	25V 10M-M	460Z100G43		
1		C132	C-E	25V 100M-M	460Z101B43		
1		C133	C-E	25V 100M-M	460Z101B43		
1		C134	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C135	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C137	C-E	25V 100M-M	460Z101B43		
1		C138	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C139	C-E	25V 100M-M	460Z101B43		
1		C140	C-E	25V 100M-M	460Z101B43		
1		C141	C-E	25V 100M-M	460Z101B43		
1		C148	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C151	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C152	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C153	C-E	16V 100M-M	465Z101C33		
1		C182	C-E	25V 47M-M	460Z470B43		
1		C184	C-E	25V 47M-M	460Z470B43		
1		C186	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C1G2	C-E	25V 47M-M	460Z470B43		
1		C1G4	C-E	25V 47M-M	460Z470B43		
1		C1G5	C-E	25V 100M-M	460Z101B43		
1		C1G6	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C1R2	C-E	25V 47M-M	460Z470B43		
1		C1R4	C-E	25V 47M-M	460Z470B43		
1		C1R6	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C201	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C202	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C203	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C204	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C205	C-E	25V 100M-M	470Z101T43		
1		C206	C-E	25V 100M-M	470Z101T43		
1		C207	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C209	C-C-CHIP	50V CH-220P-J	410Z221B14		
1		C211	C-C-CHIP	50V B-1000P-K	411Z102B14		
1		C212	C-E	25V 100M-M	470Z101T43		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		C213	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C214	C-E	100V 1M-M	470Z109T83		
1		C216	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C220	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C221	C-E	25V 100M-M	470Z101T43		
1		C222	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C223	C-E	25V 100M-M	470Z101T43		
1		C224	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C225	C-E	25V 100M-M	470Z101T43		
1		C226	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C227	C-E	25V 100M-M	470Z101T43		
1		C228	C-E	25V 100M-M	470Z101T43		
1		C229	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C230	C-E	25V 100M-M	470Z101T43		
1		C231	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C232	C-C	500V E-R01M-P/Z	411Z103A07		
1		C233	C-C	500V E-R01M-P/Z	411Z103A07		
1		C234	C-E	100V 220M-M	470Z221G87		
1		C235	C-E	100V 47M-M	470Z470G83		
1		C236	C-C	500V E-R01M-P/Z	411Z103A07		
1		C237	C-C	500V E-R01M-P/Z	411Z103A07		
1		C238	C-E	100V 10M-M	470Z100G83		
1		C239	C-C	2KV B-1000P-K	413Z102B43		
1		C240	C-C	1KV E-R01M-Z	413Z103A38		
1		C241	C-C	2KV B-3300P-K	413Z332A46		
1		C242	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C243	C-C	500V E-R01M-P/Z	411Z103A07		
1		C244	C-C	500V E-R01M-P/Z	411Z103A07		
1		C245	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C246	C-E	25V 100M-M	470Z101T43		
1		C247	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C248	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C249	C-C-CHIP	50V B-4700P-K	411Z472B14		
1		C250	C-C-CHIP	50V B-4700P-K	411Z472B14		
1		C252	C-C	500V SL-100P-J	410Z101B43		
1		C2B1	C-E-NP	50V 3R3M-M	472Z339B63		
1		C2B3	C-C-CHIP	100/200V CH-120P-J	410Z121A54		
1		C2B4	C-E-NP	100V 1M-M	472Z109F83		
1		C2B5	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C2B6	C-E	100V 1M-M	470Z109T83		
1		C2B7	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C2G1	C-E-NP	50V 3R3M-M	472Z339B63		
1		C2G3	C-C-CHIP	100/200V CH-120P-J	410Z121A54		
1		C2G4	C-E-NP	100V 1M-M	472Z109F83		
1		C2G5	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C2G6	C-E	100V 1M-M	470Z109T83		
1		C2G7	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C2R1	C-E-NP	50V 3R3M-M	472Z339B63		
1		C2R3	C-C-CHIP	100/200V CH-120P-J	410Z121A54		
1		C2R4	C-E-NP	100V 1M-M	472Z109F83		
1		C2R5	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C2R6	C-E	100V 1M-M	470Z109T83		
1		C2R7	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C602	C-E	25V 100M-M	470Z101T43		
1		C613	C-E	100V 1M-M	460Z109B83		
1		C615	C-E-NP	100V 1M-M	462Z109B83		
1		C616	C-E-NP	100V 1M-M	462Z109B83		
1		C619	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C623	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C624	C-E	100V 1M-M	470Z109T83		
1		C625	C-E	100V 1M-M	470Z109T83		
1		C626	C-E	50V 22M-M	470Z220T63		
1		C701	C-E	25V 220M-M	470Z221T43		
1		C702	C-E	25V 220M-M	470Z221T43		
1		C703	C-E	25V 220M-M	470Z221T43		
1		C704	C-E	25V 220M-M	470Z221T43		
1		C705	C-E	25V 100M-M	460Z101B43		
1		C706	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C707	C-C-CHIP	50V CH-22P-J	410Z220B14		
1		C708	C-E	50V 3R3M-M	460Z339B63		
1		C709	C-E	25V 100M-M	460Z101B43		
1		C710	C-E	100V 1M-M	470Z109T83		
1		C711	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C712	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C713	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C901	C-PP	AC250/275VR47M-M	510Z014A16		!
1		C902	C-PP	AC250/275VR47M-M	510Z014A16		!
1		C903	C-C	AC250V 2200P-M	510Z011A26		!

DWG. TITLE : ASSY-PWB-STAND

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		C904	C-C	AC250V 2200P-M	510Z011A26		I
1		C905	C-C	2KV B-220P-K	413Z221B43		
1		C906	C-C	2KV B-220P-K	413Z221B43		
1		C907	C-E	400V 68M-M	467Z011A10		I
1		C909	C-E	50V 33M-M	460Z330B63		
1		C910	C-C	2KV SL-47P-J	414Z470A28		
1		C911	C-C-CHIP	50V CH-470P-J	410Z471B14		
1		C912	C-C-CHIP	50V F-R01M-Z	411Z103B24		
1		C913	C-C	AC250V 2200P-M	510Z012A16		I
1		C920	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C921	C-C	2KV B-220P-K	413Z221B43		
1		C922	C-C	2KV B-220P-K	413Z221B43		
1		C923	C-E	25V 820M-M	470Z821S47		
1		C924	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C925	C-E	25V 100M-M	460Z101B43		
1		C926	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C928	C-E	25V 820M-M	470Z821S47		
1		C929	C-MF	50/100V R1M-J	420Z104B83		
1		C930	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C931	C-E	25V 100M-M	460Z101B43		
1		C932	C-C-CHIP	25V F-R1M-Z	411Z104B44		
1		C933	C-E	25V 22M-M	460Z220G43		
1		C934	C-MF	50V R22M-J	420Z224A13		
1		D101	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D102	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D103	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D104	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D105	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D106	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D107	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D108	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D109	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D112	D	1N4148/1SS133/1SS120	742Z001A21		
1		D150	LED	TLYG116	262Z018A40		
1		D1B1	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D1B3	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D1G1	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D1G3	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D1R1	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D1R3	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D201	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D202	ZD	MTZ-J4.7B/HZ5B1	742Z414A21		
1		D203	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D2B1	D-CHIP	1SS378/HSU83	742Z039A24		
1		D2G1	D-CHIP	1SS378/HSU83	742Z039A24		
1		D2R1	D-CHIP	1SS378/HSU83	742Z039A24		
1		D701	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D901	D	S1VB60/KBP06ML-6836	742Z056A16		
1		D906	D	EG01/D1NL40	742Z020A11		I
1		D908	D-CHIP	HSM123/DAN217/1PS226	742Z017A24		
1		D920	D	EMO1Z/D1N60/1N4003	742Z019A31		
1		D921	D	SF5LC20U/FML-128	742Z057A15		
1		D922	D	SF10SC9/YG802C09R/FCH10A09	742Z058A15		
1		D923	D	HER108/EG01C/UF4007	742Z024A21		
1		D924	ZD	P6KE120/Z2120U	742Z420A11		
1		F901	FUSE	19181/UL-ET8.3A/21806.3	283Z219A10		I
1		FC901	FUSE-CLIP	5.2*4-0.15*20-0.5MM	442Z002A13		
1		FC902	FUSE-CLIP	5.2*4-0.15*20-0.5MM	442Z002A13		
1		IC101	IC	M61323SP-600	741Z429A10		
1		IC102	IC-CHIP	24C21	741Z806A24		
1		IC103	IC-CHIP	24C21	741Z806A24		
1		IC104	IC	TMP47C241N	741Z620B10		
1		IC105	IC-CHIP	74LS157	741Z060A14		
1		IC201	IC	CXA2153S	741Z451A10		
1		IC202	IC	LM2412T	741Z440A17		
1		IC203	IC	M35047-057SP/D63SP	741Z059A30		
1		IC204	IC	LM2480NA	741Z435A10		
1		IC205	IC	7805	741Z532A25		
1		IC601	IC	AN7522	741Z431A10		
1		IC701	IC	ISP1122	741Z062A10		
1		IC702	IC	PCF8582C	741Z063A10		
1		IC901	IC	STR-G6551	741Z528A17		
1		IC920	TR	2SA1020	740Z014A13		
1		IC921	IC	431	741Z212A43		
1		K901	RELAY	F2AK05T/LKS329/DG5D1/SDT05LMR	781Z010A20		I
1		L101	SO-COPPER-WIRE		990Z001A11		
1		L102	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L103	R-M-CHIP	1/10W ZERO	613Z999B24		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		L104	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L105	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L106	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L107	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L108	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L109	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L110	COIL-CHOKE	22MH	751Z308A26		
1		L150	SO-COPPER-WIRE		990Z001A11		
1		L1B1	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L1B2	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L1G1	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L1G2	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L1R1	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L1R2	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L201	SO-COPPER-WIRE		990Z001A11		
1		L202	COIL-CHOKE	100MH	321P054A10		
1		L204	COIL-CHOKE	22MH	750Z601A11		
1		L206	R-M-CHIP	1/8W ZERO	613Z999B34		
1		L207	COIL-CHOKE	22MH	751Z308A26		
1		L208	SO-COPPER-WIRE		990Z001A11		
1		L210	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L211	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L213	FILTER-CHIP	STC104B	752Z020A24		
1		L2B1	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2B2	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2B3	R-M-CHIP	1/10W 68-J	613Z880C24		
1		L2B4	SO-COPPER-WIRE		990Z001A11		
1		L2G1	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2G2	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2G3	R-M-CHIP	1/10W 33-J	613Z330C24		
1		L2G4	SO-COPPER-WIRE		990Z001A11		
1		L2R1	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2R2	R-M-CHIP	1/10W ZERO	613Z999B24		
1		L2R3	R-M-CHIP	1/10W 33-J	613Z330C24		
1		L2R4	SO-COPPER-WIRE		990Z001A11		
1		L601	FILTER-CHIP	STC222B	752Z020A14		
1		L602	FILTER-CHIP	STC222B	752Z020A14		
1		L603	FILTER-CHIP	STC222B	752Z020A14		
1		L604	FILTER-CHIP	STC222B	752Z020A14		
1		L605	FILTER-CHIP	STC222B	752Z020A14		
1		L606	FILTER-CHIP	STC222B	752Z020A14		
1		L607	SO-COPPER-WIRE		990Z001A11		
1		L701	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L702	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L703	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L704	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L705	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L706	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L707	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L708	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L709	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L710	FILTER-CHIP	DLP31SN551SL2	752Z012A14		
1		L711	FILTER-CHIP	DLP31SN551SL2	752Z012A14		
1		L712	FILTER-CHIP	DLP31SN551SL2	752Z012A14		
1		L713	FILTER-CHIP	DLP31SN551SL2	752Z012A14		
1		L714	FILTER-CHIP	DLP31SN551SL2	752Z012A14		
1		L715	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L716	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L717	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L718	FILTER-CHIP	STC222B	752Z020A14		
1		L719	FILTER-CHIP	STC222B	752Z020A14		
1		L720	FERRITE-BEADS	ZBF503/EXCEL	750Z906A13		
1		L901	LINE-FILTER	SS28H/753Z019	753Z019A10		I
1		L902	LINE-FILTER	SS28V/753Z018	753Z018A10		I
1		L903	SO-COPPER-WIRE		990Z001A11		
1		L920	COIL-CHOKE	10MH	751Z619A26		
1		L921	COIL-CHOKE	10MH	751Z619A26		
1		PC901	PHC	TLP421F(D4-GR)	743Z002A10		I
1		Q150	TR-CHIP	KRA103/DTA124/RN2403/PDTA124	740Z661A34		
1		Q151	TR-CHIP	KRA103/DTA124/RN2403/PDTA124	740Z661A34		
1		Q152	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		
1		Q201	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q202	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		
1		Q203	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	740Z654A34		
1		Q204	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q205	TR	2SC5395/2SC1740S/2SC945/KTC945	740Z160A23		
1		Q602	TR-CHIP	BT1815/2SC2412/KTC3875/2PD601	740Z151A34		
1		Q920	TR	2SC5395/2SC1740S/2SC945/KTC945	740Z160A23		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		Q922	TR-CHIP	KRC103/DTC124/RN1403/PDTC124	7402654A34		
1		R101	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R102	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R103	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R104	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R107	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R108	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R109	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R110	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R111	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R112	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R113	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R114	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R116	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R117	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R119	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R120	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R121	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R122	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R123	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R124	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R126	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R127	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R128	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R129	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R130	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R131	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R132	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R133	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R134	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R135	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R136	R-C	1/4W 4R7K-J	613Z472C11		
1		R137	R-C	1/4W 1K-J	613Z102C11		
1		R138	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R139	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R140	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R141	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R142	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R143	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R144	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R145	R-M-CHIP	1/10W 3R3K-J	613Z332C24		
1		R146	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R147	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R148	R-M-CHIP	1/10W 4R7K-J	613Z472C24		
1		R150	R-M-CHIP	1/10W ZERO	613Z999B24		
1		R151	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R152	R-M-CHIP	1/10W ZERO	613Z999B24		
1		R153	R-M-CHIP	1/10W 39K-J	613Z393C24		
1		R154	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R155	R-M-CHIP	1/10W 6R8K-J	613Z682C24		
1		R156	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R157	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R158	R-C	1/4W 180-J	613Z181C11		
1		R159	R-C	1/4W 180-J	613Z181C11		
1		R160	R-MB	1/4W 100K-F	615Z104B11		
1		R161	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R162	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R171	R-M-CHIP	1/10W 39K-J	613Z393C24		
1		R172	R-M-CHIP	1/10W 20K-J	613Z203C24		
1		R173	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R174	R-M-CHIP	1/10W 5R1K-J	613Z512C24		
1		R175	R-M-CHIP	1/10W 12K-J	613Z123C24		
1		R176	R-M-CHIP	1/10W 5R1K-J	613Z512C24		
1		R1B1	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1B2	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1B4	R-M-CHIP	1/10W 10-J	613Z100C24		
1		R1G1	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1G2	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1G4	R-M-CHIP	1/10W 10-J	613Z100C24		
1		R1R1	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1R2	R-M-CHIP	1/10W 75-F	613Z750C54		
1		R1R4	R-M-CHIP	1/10W 10-J	613Z100C24		
1		R201	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R202	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R203	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R204	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R205	R-C	1/4W 100-J	613Z101C11		
1		R206	R-MB	2W 47-J	612Z470C37		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV	REF.NO	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		R207	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R208	R-M-CHIP	1/10W 2R2K-J	613Z222C24		
1		R209	R-C	1/4W 5R6K-J	613Z562C11		
1		R210	R-C	1/4W 1K-J	613Z102C11		
1		R211	R-C	1/4W 100-J	613Z101C11		
1		R212	R-M-CHIP	1/10W 2R2K-J	613Z222C24		
1		R213	R-C	1/4W 10K-J	613Z103C11		
1		R214	R-M-CHIP	1/10W 6R8K-J	613Z682C24		
1		R215	R-M-CHIP	1/10W ZERO	613Z999B24		
1		R216	R-C	1/4W 1K-J	613Z102C11		
1		R217	R-M-CHIP	1/10W ZERO	613Z999B24		
1		R218	R-C	1/4W 100-J	613Z101C11		
1		R220	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R221	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R222	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R227	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R228	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R229	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R230	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R231	R-M-CHIP	1/10W 100-J	613Z101C24		
1		R232	R-C	1/2W 10K-J	613Z103D81		
1		R233	R-C	1/2W 22K-J	613Z223D81		
1		R234	SO-COPPER-WIRE		990Z001A11		
1		R235	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R237	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R238	R-M-CHIP	1/10W 2R4K-J	613Z242C24		
1		R239	R-C	1/4W 10K-J	613Z103C11		
1		R240	R-C	1/4W 1K-J	613Z102C11		
1		R241	R-M-CHIP	1/10W ZERO	613Z999B24		
1		R2B2	R-M-CHIP	1/10W 22-J	613Z220C24		
1		R2B4	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R2B5	R-C	1/2W 56-J	613Z560D81		
1		R2B6	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R2B7	R-M-CHIP	1/10W 2R7K-J	613Z272C24		
1		R2BA	SO-COPPER-WIRE		990Z001A11		
1		R2BB	R-M-CHIP	1/10W 330K-J	613Z334C24		
1		R2BC	R-C	1/4W 1M-J	613Z105C11		
1		R2BD	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R2G2	R-M-CHIP	1/10W 10-J	613Z100C24		
1		R2G4	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R2G5	R-C	1/2W 56-J	613Z560D81		
1		R2G6	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R2G7	R-M-CHIP	1/10W 2R7K-J	613Z272C24		
1		R2GA	SO-COPPER-WIRE		990Z001A11		
1		R2GB	R-M-CHIP	1/10W 330K-J	613Z334C24		
1		R2GC	R-C	1/4W 1M-J	613Z105C11		
1		R2GD	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R2R2	R-M-CHIP	1/10W 10-J	613Z100C24		
1		R2R4	R-M-CHIP	1/10W 33-J	613Z330C24		
1		R2R5	R-C	1/2W 56-J	613Z560D81		
1		R2R6	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R2R7	R-M-CHIP	1/10W 2R7K-J	613Z272C24		
1		R2RA	SO-COPPER-WIRE		990Z001A11		
1		R2RB	R-M-CHIP	1/10W 330K-J	613Z334C24		
1		R2RC	R-C	1/4W 1M-J	613Z105C11		
1		R2RD	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R601	R-M-CHIP	1/10W 18K-J	613Z183C24		
1		R602	R-M-CHIP	1/10W 18K-J	613Z183C24		
1		R603	R-M-CHIP	1/10W 1R1K-J	613Z112C24		
1		R604	R-M-CHIP	1/10W 1R1K-J	613Z112C24		
1		R605	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R607	R-M-CHIP	1/10W 220-J	613Z221C24		
1		R608	R-M-CHIP	1/10W 220-J	613Z221C24		
1		R609	R-M-CHIP	1/10W 68K-J	613Z683C24		
1		R610	R-M-CHIP	1/10W 47K-J	613Z473C24		
1		R611	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R701	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R702	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R703	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R704	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R705	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R706	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R707	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R708	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R709	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R710	R-M-CHIP	1/10W 18-J	613Z180C24		
1		R711	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R712	R-M-CHIP	1/10W 15K-J	613Z153C24		

DWG. TITLE : ASSY-PWB-STAND

Q'TY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
1		R713	R-M-CHIP	1/10W 1R5K-J	613Z152C24		
1		R715	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R716	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R717	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R718	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R719	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R720	R-M-CHIP	1/10W 15K-J	613Z153C24		
1		R721	R-M-CHIP	1/10W 1M-J	613Z105C24		
1		R722	R-M-CHIP	1/10W 3R3K-J	613Z332C24		
1		R723	R-M-CHIP	1/10W 3R3K-J	613Z332C24		
1		R724	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R725	R-C	1/4W 1K-J	613Z102C11		
1		R732	THERMISTOR	RUSB120	744Z005A13		
1		R733	THERMISTOR	RUSB120	744Z005A13		
1		R734	THERMISTOR	RUSB120	744Z005A13		
1		R735	THERMISTOR	RUSB120	744Z005A13		
1		R901	R-C	1/2W 470K-J	613Z474D81		
1		R903	R-FUSE	1/4W 10-J	614Z100A61		
1		R905	R-C	1/4W 680-J	613Z681C11		
1		R906	R-MB	1W R47-J	612Z478C27		
1		R907	R-M-CHIP	1/10W 3R3K-J	613Z332C24		
1		R908	R-MB	2W 100K-J	612Z104C37		
1		R909	R-MB	2W 100K-J	612Z104C37		
1		R910	FUSE	251005/20N5000	283Z221A21		
1		R920	R-FUSE	1/4W 15-J	614Z150A61		
1		R921	R-FUSE	1/4W 15-J	614Z150A61		
1		R925	R-C	1/4W 270-J	613Z271C11		
1		R926	R-M-CHIP	1/10W 2R2K-J	613Z222C24		
1		R927	R-M-CHIP	1/10W 2R2K-F	613Z222C54		
1		R928	R-M-CHIP	1/10W 1K-J	613Z102C24		
1		R929	R-M-CHIP	1/10W 1K-F	613Z102C54		
1		R930	FUSE	251003/20N3000	283Z221A11		
1		R931	FUSE	20N3150	283Z223A11		
1		R932	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R933	R-M-CHIP	1/10W 10K-J	613Z103C24		
1		R935	R-C	1/4W 2R2K-J	613Z222C11		
1		R936	R-C	1/4W 470-J	613Z471C11		
1		S150	SW	EVQ11A07K	129Z037A13		
1		S151	SW	EVQ11A07K	129Z037A13		
1		S152	SW	EVQ11A07K	129Z037A13		
1		S153	SW	EVQ11A07K	129Z037A13		
1		S154	SW	EVQ11A07K	129Z037A13		
1		S155	SW	EVQ11A07K	129Z037A13		
1		S901	SW-POWER	AJ7241WW	129Z041A10		
1		SG201	NEON-LAMP	DSP-152M/YP-152N	789Z014A31		
1		SG202	NEON-LAMP	DSP-201M/YP-201N	789Z014A41		
1		SG2B1	NEON-LAMP	DSP-201M/YP-201N	789Z014A41		
1		SG2G1	NEON-LAMP	DSP-201M/YP-201N	789Z014A41		
1		SG2R1	NEON-LAMP	DSP-201M/YP-201N	789Z014A41		
1		T901	SWT		756Z017A10		
1		TH150	THERMISTOR	NTSA0XH103EN6A0	744Z004A13		
1		TH901	THERMISTOR	10	744Z001A28		
1		VR901	VR	B-2K	820Z202A60		
1		X101	XTAL	4MHZ	780Z012A13		
1		X701	XTAL	6MHZ	780Z003A33		
1		CN101	CONNECTOR-SIGNAL	SDA-87112/SDA-89263/EHDE-15S	452Z723A10		
1		CN102	CONNECTOR-SIGNAL	SDA-87112/SDA-89263/EHDE-15S	452Z723A10		
1		CN203	SOCKET-CRT	ISDW02S-L	449Z005A10		
1		CN601	CONNECTOR-SIGNAL	HSJ2000-01-010	452Z770A10		
1		CN602	CONNECTOR-SIGNAL	HSJ2000-01-010	452Z770A10		
1		CN701	CONNECTOR-SIGNAL	820-BFR-M13/ABDBC004C0	452Z775A10		
1		CN702	CONNECTOR-SIGNAL	AACB2008A0	452Z771A30		
1		CN703	CONNECTOR-SIGNAL	AACB2008A0	452Z771A30		
2		A	CONNECTOR	A2501WV2-8P	452Z029G10		
1		AC	CONNECTOR	A3963WV2-3P-2NC	452Z052A10		
1		AD	CONNECTOR	A3963WV2-5P-2,4NC	452Z052B10		
1		B	CONNECTOR	A2501WV2-7P	452Z029F10		
1		B1	CONNECTOR	A2501WV2-3P	452Z029B10		
1		C2	CONNECTOR	A2501WV2-6P	452Z029E10		
1		D	CONNECTOR	A2501WV2-6P	452Z029E10		
2		E	CONNECTOR	A2501WV2-2P	452Z029A10		
1		G	CONNECTOR	A2501WV2-5P	452Z029D10		
1		G1	CONNECTOR	A2501WV2-4P	452Z029C10		
1		L	CONNECTOR	A2501WV2-3P	452Z029B10		
1		R	CONNECTOR	A2501WV2-2P	452Z029A10		
1		SC	CONNECTOR	A3963WV2-2P	452Z030A10		
2			GT-PIN	DIA2.36	452Z902A10		
19			EYELET		679D022A20		

DWG. TITLE : ASSY-PWB-STAND

QTY	REV.	REF.NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
2			RADIATOR		595D313A10		
1			RADIATOR	OSH-2425/PR1724/790Z006-10	790Z006A10		
1			RADIATOR	15*24.5*100	790Z033A10		
1		12	R-FUSE	1W 6R8-J	614Z689B37		
1			PWB-STAND		210R099-01		I

DWG. TITLE : SUB-MATERIAL

QTY	REV.	REF. NO.	PART	DESCRIPTION	PART NO.	PRICE	REMARK
#		AA	SILICONE-GUM	TSE3940/KE3490	090Z001A10		!
#		AB	SILICONE-GUM	TSE3940	090Z001A20		!
#		AC	SILICONE-GUM	TSE3941	090Z032A01		!
#		AD	SILICONE-GUM	KE3480	090Z018A01		!
#		AE	SILICONE-GUM	TSE3941	090Z032A02		!
#		AF	SILICONE-GUM	KE40RTV	090Z009A30		!
#		AH	SILICONE-GREASE	YG8260/G747	090Z007A10		
#		AJ	SILICONE-GREASE	KS660	090Z027A01		
#		AK	SILICONE-GREASE	G501	090Z016A01		
#		AL	SILICONE-GREASE	TSK5370	090Z028A01		
#		AM	BOND	LEICHLCK-NO.3-C	090Z010A10		
#		AP	BOND	DN297A	090Z012A10		
#		AQ	BOND	DN297A	090Z012A20		
#		AR	BOND	3609/348/MR-8121	090Z031A01		
#		AS	BOND	EC3748-TC-Q	090Z014A10		
#		AU	SOLDER-ROSIN	E-28RH60-B/RS3/X52/115A-1	090Z019A01		
#		AV	SOLDER-ROSIN	E-28RH60-B/RS3/115A-1	090Z019A02		
#		AW	SOLDER-ROSIN	E-28RH60-B/RS3/115A-1	090Z019A03		
#		AX	SOLDER-ROSIN	SE4-M952K	090Z030A02		
#		AY	SOLDER-ROSIN	H63A/H63S/BAR63/37/63EN/H63E	090Z023A01		
#		AZ	SOLDER-ROSIN	T6204/221CM5/PS130B	090Z030A01		
#		BA	FLUX	CF330VH/130VS/TNF21V	090Z021A01		
#		BB	FLUX	ULF-300VZ-2/ULF-300VZ-3	090Z021A02		
#		BC	DILUTION		090Z022A01		
#		BE	CLEAN-COAT	TC-110M/TC-131L	090Z026A01		
#		BG	STAPLE	TB18	811Z001A01		
#		BJ	PAINT	30-10	090Z020A01		
#		BK	PAINT	WHITE	090Z029A01		
#		BM	LABEL	TACK-TITLE-70-4IN-G	851Z001A04		
#		BP	SUB-PARTS	JK-WIPER-150S	090Z033A01		
#		BT	UL-TAPE	NO.303	830P100A10		
#		BU	DF-TAPE	#575	890P329A10		
#		BV	ACETATE-TAPE	NO.570F/AC04	830Z014A01		
#		BY	TAPE	T222A	830Z011A01		
#		CA	MAGNET	B-1030	890P302A10		
#		CB	MAGNET	OP-B1F	890P326A10		
#		CC	MAGNET	M-594(58854900)	890Z008A01		
#		CD	MAGNET	138D	890Z010A01		
#		CE	ITC-PARTS	FERRITE-PIECE-A	890Z011A01		